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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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     THE THE RESERVE TO TH
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PHSL_DESBN
PAR2_MANSE
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DHAB_COMTE
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. 25, Created) . 25, Last sequence updat . 28, Last annotation upd E II (PP II). Obacco hawkmoth) (Tobacco oa; Arthropoda; Tracheata	ANSE	14 PACDGER 20 :: 6 PAADGKK 12	Query Match 23.6%; Score 26; DB 1; Length 19; Best Local Similarity 57.1%; Pred. No. 3.4e+02; Matches 4; Conservative 2; Mismatches 1; Indels 0; Gaps 0;	NON_TER 19 19 19 SEQUENCE 19 AA; 1942 MW; 2BFCD2D360F00367 CRC64;	ctase; Perí	PS00507; NI_HGENASE_L_1;		-1- SUBCELLULAR LOCATION: PERIPLASMIC.-1- SIMILARITY: BELONGS TO THE [NIFE]/[NIFESE] HYDROGENASE LARGE	!- SUBUNIT: HET	-i- COFACTOR: ONE NICKEL ION, TWO 4FE-4S CLUSTERS AND ONE	-I-CATALYTIC ACTIVITY: 2 REDUCED FERREDOXIN + 2 H(+) = 2 OXIDIZED	1brio.";	Moura I., Moura J.J.G., Patil D., Huynn B.H.; "Identification of three classes of hydrogenase in the genus,	rtanian D.V., Peck H.D. Jr., Fauque G.,	Choi E.S.			HYDROGENLYASE LARGE CHAIN) (FXAGMENT). Desulfovibrio baculatus (strain Norway 4).	NIFESE] F		(Rel.	PHSL_DESBN STANDARD; PRT; 19 AA.	JT 1 DESBN

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RESULT 3
XYLA_STRVN
ID 174A-STRVN
AC P14405;
DT 01-JAN-1990
DT 01-JAN-1990
DT 15-JUL-1999
DE XYLOSE ISOM
OS Streptonycet.
RN (1]
CC Actinomycet.
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01-JAN-1990 (Rel. 13, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
XYLOSE ISOMERASE (EC 5.3.1.5) (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS00172; XYLOSE_ISOMERASE_1; PARTIA PROSITE; PS00173; XYLOSE_ISOMERASE_2; PARTIA Isomerase; Pentose shunt; Xylose metabolism;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BIOCHEM. J. 263:195-199(1989).

- CATALYTIC ACTIVITY: D-XYLOSE - D-XYLULOSE
- COFACTOR: MAGNESIUM IS NECESSARY FOR THE
- SUBUNIT: HOMOTETRAMER.
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Vangrysperre W., A
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MEDLINE=91302298;
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Sphingiodea; Sphingidae;
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Bacteria; Firmicutes; Actin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "RAINE-Me / 100;
IPAINE-90104230; PubMed-2604694;
IRDLINE-90104230; PubMed-2604694;
Irangrysperre W., Ampe C., Kersters-Hilderson H., Tempst P.;
Isingle active-site histidine in D-xylose isomerase from Stre
Identification by chemical derivatization and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Isolation and identification of the lepidopteran insects Manduca Heliothis virescens.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HSSP; P37031; 1DXI
                                                                                                                          Local
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FUNCTION: CAUSES RAPID, RIGID PARALYSIS WHEN INJECTED INTO FUNCTION: CAUSES RAPID, RIGID PARALYSIS WHEN INJECTED INTO LEPTIDOPTERAN LARVAE. THE PHYSIOLOGICAL ROLE MAY BE TO REDUCE HEMOLYMPH LOSS FOLLOWING INJURY AND PROMOTE WOUND HEALING.
SIMILARITY: BELONGS TO THE GBP / PSP1 / PARALYTIC PEPTIDE FAMILY
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nis P.A., Li J.P.,
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                                                                                                                       21.8%; 57.1%;
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1; Mismatches
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Pred. No. 5.9e+02
1; Mismatches
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OB26CB5C31265FE4 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                              PARTIAL.
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21-JUL-1986
15-DEC-1998
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SEQUENCE
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API_MANSE
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LC P30253;
LC P30253;
DT 01-APR-1993 (Rel. 25, Created)
DT 01-APR-1993 (Rel. 25, Last sequence update)
DT 15-JUL-1999 (Rel. 38, Last annotation update)
DE PARALYTIC PEPFIDE I (PP I).
OS Manduca sexta (Tobacco hawkmoth) (Tobacco hornworm).
OC Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Ins
OC Pterygota; Meoptera; Endopterygota; Lepidoptera; Glossa*
Chingiodea; Sphingidae; Sphinginae; Manduca.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 21.8%;
Best Local Similarity 80.0%;
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE-87191003; PubMed-3552731; Shimonishi Y., Hidaka Y., Koizumi M., Hane M., Aimoto S., Takeda T., Miwatani T., Takeda Y.; Miwatani T., Takeda Y.; "Mode of disulfide bond formation of a heat-stable enterotoxin (STh) produced by a human strain of enterotoxigenic Escherichia coli."; FEBS Lett. 215:165-170(1987).
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"Amino acid sequence of heat-stable enterotoxin produced Escherichia coli pathogenic for man.";
J. Biol. Chem. 256:7744-7746(1981).
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STRAIN-18D / SEROTYPE 0.42:K86:H37;
MEDLINE-81264141; PubMed=7021541;
SEQUENCE.
TISSUE-HEMOLYMPH;
MEDLINE-91302298;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PIR; A01823; QHEC2.
HSSP; P01559; 1ETN.
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Bacteria; Proteobacteria; gamma subdivision; Enterobacteriaceae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FUNCTION: TOXIN WHICH ACTIVATES THE PARTICULATE FORM OF GUANYLATE CYCLASE AND INCREASES CYCLIC GMP LEVELS WITHIN THE HOST INTESTINAL EPITHELIAL CELLS.

DISEASE: BOTH HEAT-STABLE AND HEAT-LABILE ENTEROTOXINS ARE PRODUCED BY PATHOGENIC STRAINS OF E.COLI AND AFFECT THE DIGESTIVE TRACT OF MAMMALS.

SIMILARITY: BELONGS TO THE HEAT-STABLE ENTEROTOXIN FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Enterotoxin.
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(Rel. 01, Last sequence up
(Rel. 37, Last annotation
ENTEROTOXIN ST-2 (ST-B).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
     PubMed=2071576;
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                                                                                                                           Glossata;
                                                                                                                 Insecta;
ssata; Ditrysia;
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SOURCE COCCEPT TO A REPORT OF THE PROCESS OF THE PR
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FARP_L
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Best Local S
Matches 7
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P38553;
01-OCT-1994
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                                                                                                                   Biochem. Biophys. Res. Commun. 160:850-856(1989).

1. FUNCTION: MUSCLE INHIBITING AGENT. INVOLUTED IN THE NEURAL CONTRO OF THE VISCERAL MUSCLES OF THE HEART, ACCESSORY GLANDS AND OVIDUCT. MAY BE INVOLVED IN THE REGULATION OF SALIVA SECRETION.

1. TISSUE SPECIFICITY: FOUND IN AXONS OF THE MALE ACCESSORY GLANDS, THE HEART, AND THE MOLITURE SELLIVARY GLANDS, THE HEART, AND THE OVIDUCT.

1. SIMILARITY: BELONGS TO THE FARP (FMRFAMIDE RELATED PEPTIDE)
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SEQUENCE
                                                                                                                                                                                                                                                                                                            SPECIES-S.GREGARIA; TISSUE-THORACIC NERVOUS SYMEDLINE-89246543; PubMed-2719702;
Robb S., Packman L.C., Evans P.D.;
"Isolation, primary structure and bloactivity FMRF-amide-like neuropeptide from the locust,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Locusta migratoria (Migratory locust), and Schistocerca gregaria (Desert locust). Schistocerca gregaria (Desert locust). Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Pterygota; Neoptera; Orthopteroidea; Orthoptera; Cael Acridomorpha; Acridoidea; Acrididae; Locusta.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-OCT-1994 (Rel. 30, Created)
01-OCT-1994 (Rel. 30, Last sequence up
30-MAY-2000 (Rel. 39, Last annotation
SCHISTOFLRFAMIDE (PDVDHFLRF-AMIDE) (CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Isolation and identification of
the lepidopteran insects Manduca
Heliothis virescens.";
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Quistad G.B.;
                                                                           PIR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SPECIES-L.MIGRATORIA; TISSUE-BRAIN; MEDLINE-93324430; PubMed-7687352; Schoofs L., Holman G.M., Paemen L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PIR;
                         Neuropeptide;
MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      de Loof A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Peptides 14:409-421(1993).
[2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   male accessory
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (SchistoFLRFamide) in male accessory glands,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'Isolation, identification, and synthesis of PDVDHFLRFamide
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FUNCTION: CAUSES RAPID, RIGID PARALYSIS WHEN INJECTED INTO LEPIDOPTERAN LARVAE. THE PHYSICIOGICAL ROLLE MAY BE TO REDUCE HEMOLYMPH LOSS FOLLOWING INJURY AND PROMOTE WOUND HEALING.

SIMILARITY: BELONGS TO THE GBP / PSP1 / PARALYTIC PEPTIDE FAMILY. A39855; A39855.
                                                                                                      FAMILY
                                                                           A32543; A32543
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10 AA;
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  AMIDATION.
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0B26CB5C29855FE4 CRC64;
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sexta, Spodoptera e
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ion update)
(CARDIOEXCITATORY NEUROPEPTIDE).
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8.6e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   its association with the heart, and the
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     CRC64;
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Query Match Best Local Similarity

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Score Pred.

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DB 1; 5.5e+02;

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RESULT IN ENGINE RESULT
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Matches 4
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NEOMYOSUPPRESSIN (NE
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-1- FUNCTION: INHIBITS THE SI
PROTODEUM (HINDGT).
Neuropeptide; Amidation.
MOD_RES 1 1 1
MOD_RES 10 10
SEQUENCE 10 AA; 1275 MW;
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P41494;
01-NOV-1995
01-NOV-1995
01-FEB-1996
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Drosophila melanogaster (Fruit fly), and sarcophaga bullata (Grey flesh fly) (Neobellieria bullata) Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insec Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Metazoa; Brachycera; Metazoa; Drosophila.
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P11144; P41497;

P11147-1991 (Rel. 18, Created)

O1-FEB-1994 (Rel. 28, Last sequence update)

O1-NOV-1995 (Rel. 32, Last annotation update)

LEUCOMYOSUPPRESSIN (LMS) (LEM-MS)

Leucophaea maderae (Madeira cockroach).

Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda;

Pterygota; Neoptera; Orthopteroidea; Dictyoptera; Blabberoidea; Blaberoidea; 
Fonagy A., Schoofs L., Proost P., "Isolation, primary structure and myoinhibiting neuropeptide from the
                                                                                                                                                                                                                                    "Isolation and structural characterization of Drosophila TDVDHVFLRFamide and FMRFamide-containing neural peptides J. Mol. Neurosci. 3:213-218(1992).
                                                                                             SPECIES-S.BULLATA; TISSUE-HEAD; MEDLINE-93047886; PubMed-1358537;
                                                                                                                                                                                                                                                                                                                                         Nichols R.;
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                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-93002195;
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Isolation, primary structure and synthesis of leucomyosuppressin, in insect neuropeptide that inhibits spontaneous contractions of tookroach hindgut.";
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57.1%;
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THE SPONTANEOUS CONTRACTIONS OF
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Van Damme J., Bueds H., De Loos
synthesis of neomyosuppressin,
he grey fleshfly, Neobellieria
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-!- FUNCTION: MYOINHLBITING N
FLYBASE; FBgn0013996; Nems.
Neuropeptide; Amidation.
MOD_RES 10 10
SEQUENCE 10 AA; 1248 MW;
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DURC_STRGP
P36503;
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01-JUN-1994
15-DEC-1998
               MEDLINE-91107436; PubMed-2125590; Fredenhagen A., Fendrich G., Marki F., Marki W., Grunaschdorf F., Peter H.H.; "Duramycins B and C, two new lanthionine containing inhibitors of phospholipase A2. Structural revision cinnamycin.";
                                                                                                                                                                                           Streptomyces griseoluteus.
Streptomyces griseoluteus.
Bacteria; Firmicutes; Actinobacteria; Actinobacterida
Bacteria; Firmicutes; Actinobacteria; Actinobacterida
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Luykx D.M.A.M., Kim S.W., de Vries S.,
Submitted (JUL-1996) to the SWISS-PROT
-i- CATALYTIC ACTIVITY: AN ALDEHYDE + P
REDUCED ACCEPTOR.
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Comp. Biochem. Physiol. 102C:239-245(1992).
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ALDEHYDE DEHYDROGENASE, BETA CHAIN (EC 1.2.99.3) (ALDH) (FRAGMENT).
Commanonas testosteroni (Pseudomonas testosteroni).
Bacteria; Proteobacteria; beta subdivision; Comamonadaceae; Comamon
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P80704;
    J. Antibiot.
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Tetrahedron Lett. 26:665-668(1985).
Tetrahedron Lett. 26:665-668(1985).
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p1-FEB-1995 (Rel. 31, Created)
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Bacteria; Firmicutes; Actinobacteria; Actinobacterid
Actinomycetales; Streptomycineae; Streptomycetaceae;
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-i- FUNCTION: ACTS AS INHIBITOR OF PHOSPHOLIPASE-i- FIM: MATURATION OF LANTIBIOTICS INVOLVES THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRUCTURE BY NMR.
MEDLINE=93387292; PubMed=8375380;
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"Solution structure of
(In) Schneider C.H., Ek
                                             THIOETH
                                                                   THIOETH
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SIMILARITY: STRUCTURAL SIMILARITY TO OTHER TYPE B LANTIBIOTICS.
                                                                                                                                                                                                                                        FUNCTION: ACTS AS INHIE SIMILARITY: STRUCTURAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               pp.519-520, Escom Science Publishers,
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D-ABU (AMINOBUTYRIC ACID).
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LYSINOALANINE (BONDED TO 6).
ABU-S-CYS (METHYLLANTHIONINE).
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F434299E2736286A CRC64;
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D-ABU (AMINOBUTYRIC ACID).
D-ABU (AMINOBUTYRIC ACID).
LYSINOALANINE (BONDED TO 6).
ABU-S-CYS (METHYLLANTHIONINE).
ALA-S-CYS (LANTHIONINE).
ABU-S-CYS (LANTHIONINE).
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E2404ECE3F95286A CRC64;
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new peptide inhibitor
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1.5e+03;
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duramycin
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ENZYMIC CONVERSION
FORMATION OF SULFII
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Query Match Best Local Similarity

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Score Pred.

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DB 1; 1.5e+03;

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Best Local :
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01-FEB-1995
01-NOV-1995
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Miller S.G., Leclerc R.F., Erdos G.W.;

"Identification and characterization of a testis-specific isoform of a chaperonin in a moth, Heliothis virescens.";

J. Mol. Biol. 214:407-422(1990).

-!- FUNCTION: IMPLICATED IN MITOCHONDRIAL PROTEIN IMPORT AND MACROMOLECULAR ASSEMBLY. MAY FACILITATE THE CORRECT FOLDING OF IMPORTED PROTEINS. MAY ALSO PREVENT MISFOLDING AND PROMOTE THE REFOLDING AND PROPER ASSEMBLY OF UNFOLDED POLYPEPTIDES GENERATED UNDER STRESS CONDITIONS IN THE MITOCHONDRIAL MATRIX (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAY-1992 (Rel. 22, Created)
01-MAY-1992 (Rel. 22, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
60 KDA CHAPERONIN, MITOCHONDRIAL (P60) (FRAGMENT).
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PROSITE; PS00296; CHAPERONINS_CPN60; PROSITE; PS00296; Testis; Mitoc Chaperone; ATP_binding; Testis; Mitoc
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Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Lepidoptera; Glossata; Di
Noctuoidea; Noctuidae; Hellothinae; Heliothis.
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MEDLINE=95045586; PubMed=7957245; Tsiboli P., Herfurth E., Choli T.;
                                               SEQUENCE
                                                                                               Bacteria;
                                                                                                                      Thermus aquaticus
                                                                                                                                                 RPSK OR RPS11
                                                                                                                                                                                                                                                                  RS11_THETH P80376;
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-i- SIMILARITY: BELONGS TO THE CHAPERONIN (HSP60)
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                                                                                               Thermus,
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(Rel. 32, Last ann
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DEVELOPMENT.
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                                                                                                  DURA_STRGV STANDARD; PRT; 19
p36504;
01-JUN-1994 (Rel. 29, Created)
01-JUN-1994 (Rel. 29, Last sequence upda:
01-JUN-1994 (Rel. 29, Last annotation up
LANTIBIOTIC DURAMYCIN (LEUCOPEPTIN) (ANT
Streptoverticillium griseoverticillatum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Purification and characterization of the bacterium Thermus thermophilus." the bacterium Thermus thermophilus." bur'yu. niochem. 226:169-177(1994).
-I- FÜNCTION: S11 PLAYS AN ESSENTIAL.
                                                                                                                                                                                                                                                                                                                          Bacteria; Firmicutes; Actinobacte
Actinomycetales; Streptomycineae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ribosomal protein.
NON_TER 25
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PROSITE; PS00054; RIBOSOMAL_S11;
                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                        "The structure of PA48009: the revised J. Antibiot. 43:1421-1430(1990).
                                                                                                                                                                                                                                                                    Hayashí
                                                                                                                                                                                                                                                                                        STRAIN-PA-48009
                                                                                                                                                                                                                                                                                                SEQUENCE,
                                                                                                                                                                                                                                                                                                                Streptoverticillium.
                                                                                                                                                                                                                                                                              MEDLINE-91107438; PubMed-2272918;
                                                                                                                                                                                                                                                           tazaki H.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5 AFLHAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FUNCTION: S11 PLAYS AN ESSENTIAL ROLE FOR THE SELECTION OF THE CORRECT TRNA IN PROTEIN BIOSYNTHESIS. IT IS LOCATED ON THE LALOBE OF THE SMALL SUBUNIT (BY SIMILARITY).

SIMILARITY: BELONGS TO THE S11P FAMILY OF RIBOSOMAL PROTEINS.
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| AYIHAS
                                                                                              SIMILARITY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity 50.3; Conservative
                                                                                                                                                                                                                                                                   F., Nagashima K., Terui
                                                                                                                                                                                                                                                                                                AND STRUCTURE BY NMR.
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M.
                                   D-ALANINE.
D-ALANINE (BONDED TO 19).
D-ABU (AMINOBUTYRIC ACID).
D-ABU (AMINOBUTYRIC ACID).
LYSINOALANINE (BONDED TO 6).
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Pred.
ABU-S-CYS (METHYLLANTHIONINE).
ALA-S-CYS (LANTHIONINE).
ABU-S-CYS (METHYLLANTHIONINE).
012951AE27362F00 CRC64;
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2e+03;
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Query Match Best Local S Matches

h 19.1%; S Similarity 100.0%; 3; Conservative 0;

Score 21; DB Pred. No. 2.2 0; Mismatches

DB 1; Lt 2.2e+03; hes 0;

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CH60_BOVIN
P31081;
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DURB_ST
P36502;
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"Solution structures of the lantibiotics duramycin B and C.";
Eur. J. Biochem. 216:419-428(1993).
-i- FUNCTION: ACTS AS INHIBITOR OF PHOSPHOLIPASE A2.
-i- PTM: MATURATION OF LANTIBIOTICS INVOLVES THE ENZYMIC CONVETHR, SER, AND CYS INTO DEHYDRATED AA AND THE FORMATION OF BRIDGES. THIS IS FOLLOWED BY THE MEMBRANE TRANSLOCATION AN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Streptoverticillium sp. (strain R2075).
Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
Actinomycetales; Streptomycineae; Streptomycetaceae;
                                                                                                                                                                                             SEQUENCE
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cinnamycin.";
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Raschdorf F., Pe
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
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01-FEB-1996
                                                                                                                                                                                                                                                                                         Antibiotic;
                                                                                                                                                                                                                                                                                                                                                                                                                            "Simmermann N., Freund S., Fredenhagen A., Jung G.; "Solution structure of the lantibiotics duramycin B (In) Schneider C.H., Eberles A.N. (eds.); Peptides 1992, pp.519-520, Escom Science Publishers,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Raschdorf F., Peter H.H.;
"Duramycins B and C, two new lanthionine
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                                            STANDARD;
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LYSINOALANINE (BONDED TO 6).
ABU-S-CYS (METHYLLANTHIONINE).
ALA-S-CYS (LANTHIONINE).
ABU-S-CYS (METHYLLANTHIONINE).
O133445E27362F00 CRC64;
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Pred. No.
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                                                                                                                                                            Length 19;
                                                                                                                                                                                                                                                                                                                                           ENZYMIC CONVERSION OF
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P15987;
01-APR-1990
01-APR-1990
15-JUL-1999
ACTIN 7 (FRACTIN 7)
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                                                                                                                                                                                                                                                           Eukaryota, Viridiplantae; Embryopn
Eukaryota; Viridiplantae; Embryopn
Magnoliophyta; eudicotyledons; core
Tahales; Fabaceae; Papillonoideae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Molecular mimicry in Lyme disease: monoclonal antibody H9724 to burgdorferi flagellin specifically detects chaperonin-HSP60."; Biochim. Blophys. Acta 1181:97-100(1993).

-I- FUNCTION: IMPLICATED IN MITOCHONDRIAL PROTEIN IMPORT AND MACKED PROTECULAR ASSEMBLY. MAY FACILITATE THE CORRECT FOLDING IMPORTED PROTEINS. MAY ALSO, PREVENT MISSPOLDING AND PROMOTE 'REFOLDING AND PROPER ASSEMBLY OF UNFOLDED POLYPEPTIDES GENE UNFOLDER STRESS CONDITIONS IN THE MITOCHONDRIAL MATRIX.

-I- SUBCELULAR LOCATION: MITOCHONDRIAL MATRIX.

-I- SUBCELULAR LOCATION: MITOCHONDRIAL MATRIX.
                                                                                                                                                      genes."
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NON_TER 22 22
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                                                                                                                                                                                                                                                                                                         Glycine max (Soybean).
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INTERPRO; IPRO01844; -
PROSITE; PS00296; CHAPERONINS_CPN60;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bos taurus (Bovine).
Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60 KDA HEAT SHOCK PROTEIN, MITOCHONDRIAL (CPN60) (HEAT SHOCK PROTEIN 60) (HSP-60)
                                                                                                                                       Plant Mol.
                                                                                                                                                                 "Diverse soybean actin transcripts untranslated leader: structural sin
                                                                                                                                                                                             Pearson L., Meagher R.B.;
                                                                                                                                                                                                                                       SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mammalia; Eutheria;
                                                                                                                                                                                                           MEDLINE=91346640; PubMed=2102831;
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          IN ALL EUKARYOTIC CELLS.
FUNCTION: ESSENTIAL COMPONENT OF CELL CYTOSKELET
IMPORTANT ROLE IN CYTOPLASMIC STREAMING, CELL SH
CELL DIVISION, ORGANELLE MOVEMENT AND EXTENSION
SUBCELLAUGH LOCATION: CYTOPLASMIC.
MISCELLAUGHS LOCATION: CYTOPLASMIC.
MISCELLAUGHSUS: HEREE ARE AT LEAST 16 ACTIN GENES
SIMILARITY: BELONGS TO THE ACTIN FAMILY.
                                                                                                         nt Mol. Biol. 14:513-526(1990).
FUNCTION: ACTINS ARE HIGHLY CONSERVED
IN VARIOUS TYPES OF CELL MOTILITY AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (FRAGMENT)
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(Rel. 14, Last sequence update)
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180; PubMed-8096152;
2 u Stein S., Li
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(MITOCHONDRIAL MATRIX PROTEIN
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                                                                   CYTOSKELETON;
NG, CELL SHAPE
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to vertebrate m
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                           IN SOYBEAN
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FOLDING OF
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Matches 5
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01-APR-1990
01-APR-1990
15-JUL-1999
                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         genes.";
Plant No. 14:513-526(1990).
Plant No. 2011 ACTINS ARE HIGHLY CONSERVED IN VARIOUS TYPES OF CELL MOTILITY AND IN ALL EUKARYOTIC CELLS.
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NON_TER 13 13
SEQUENCE 13 AA; 1420 MW; 8BEFF3C3
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PROSITE; PS00432; ACTINS_2; PARTIAL.
PROSITE; PS01132; ACTINS_ACT_LIKE; PARTIAL
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                                                     INTERPRO; IPRO00279;
                                                                              PIR; S15754; S15754.
                                                                                                          EMBL; X17119; CAA34979.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pearson L., Meagher R.B.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE-91346640; PubMed-2102831;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTIN 6
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                                                                                                                                                                                                                                                                                                                                                                            FUNCTION: ESSENTIAL COMPONENT OF CELL CYTOSKELETC
IMPORTANT ROLE IN CYTOPLASMIC STREAMING, CELL SHA
CELL DIVISION, ORGANELLE MOVEMENT AND EXTENSION G
SUBCELLULAR LOCATION: CYTOPLASMIC.
MISCELLANEOUS: THERE ARE AT LEAST 16 ACTIN GENES
SIMILARITY: BELONGS TO THE ACTIN FAMILY.
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5; Conserv
     PS00406;
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(Rel. 14, Last sequence unit (Rel. 38, Last annotation)
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ACTINS_1;
ACTINS_2;
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  PARTIAL.
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Pred. No. 1.8e
1; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          OF CELL CYTOSKELETON;
STREAMING, CELL SHAPE
MENT AND EXTENSION GROW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             on update)
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to vertebrate m
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Best Local
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FEMANSE STAN
P18523;
01.WOV-1990 (Rel. 1
01-FEB-1994 (Rel. 2
01.WOV-1995 (Rel. 3
"A new pep
                                                                                    Manduca sexta (Tobacco hawkmoth) (Tobacco hornworm).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda;
Pterygota; Neoptera; Endopterygota; Lepidoptera; Glos
Sphingiodea; Sphingidae; Sphinginae; Manduca.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE-88314903; PubMed-3045083;
MORTIS S.J., Charon N.W., Cook R.G., Fuentes M.D., Limberger R.J.;
"Antigenic relatedness and N-terminal sequence homology define two classes of periplasmic flagellar proteins of Treponema pallidum subsp. pallidum and Treponema phagedenis.";
J. Bacteriol. 170:4072-4082(1988).
-!- FUNCTION: COMPONENT OF THE OUTER LAYER OF THE FLAGELLA.
-!- SUBUNIT: OUTER LAYER COMPOSED OF REPEATING UNITS OF FLAA AND A CORE THAT CONTAINS ONE OR ALL OF FIVE ANTIGENICALLY RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FLAA_TREPH STANDARD; PRT; 25 AA.
P21983;
01-AUG-1991 (Rel. 19, Created)
01-AUG-1991 (Rel. 19, Last sequence update)
01-AUG-1991 (Rel. 19, Last annotation update)
FLAGELLAR FILAMENT OUTER LAYER PROTEIN (SHEATH PROTEIN) (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TREPH
                     MEDLINE-91045350; PubMed-2235684;
Kingan T.G., Teplow D.B., Phillips J.M.,
Hildebrand J.G., Homberg U., Kammer A.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FLAA.
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                                                                                                                                        FMRFAMIDE-LIKE NEUROPEPTIDE.
                                                                                                                                                                                                                                                                                                                                                                                                                    POLYPEPTIDE.
-!- SUBCELLULAR LOCATION:
PIR; B32351; B32351.
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                                                             SEQUENCE
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Spirochaetales;
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28, Last sequence up
32, Last annotation
the FMRFamide family isolated from
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Pred. No. 3.4e+03;
7; Mismatches 4
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Pred. No. 2.3e+03;
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Best Local Similarity
Thehes 3; Conserv
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Peptides 11:849-856(1990).

-i- FUNCTION: INCREASES THE FORCE OF NI
THE MAJOR POWER-PRODUCING FLIGHT MI
MUSCLES AND SO IS LIKELY TO PLAY A
FLIGHT BEHAVIOR PATTERNS.

-i- SIMILARITY: BELONGS TO THE FARP (FN
FAMILY.
21-JUL-1986 (Rel. 01,
21-JUL-1986 (Rel. 01,
01-NOV-1988 (Rel. 09,
ALPHA-CONOTOXIN GII.
                CONGE
CXA2_CONGE
P01520;
21-JUL-1986
21-JUL-1988
01-NOV-1988
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SEQUENCE
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DISULFID
MOD_RES
SEQUENCE
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Eukaryota; Metazoa; Mollusca; Gas
Neogastropoda; Conoidea; Conidae;
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P15471;
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HSSP; P01519; 1NOT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Biochemistry 27:7102-7105(1988).
-!- FUNCTION: ALPHA-CONOTOXINS ACT ON POSTSYNAPTIC BIND TO THE NICOTINIC ACETYLCHOLINE RECEPTORS (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zafaralla G.C.,
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MEDLINE=89062448;
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01-APR-1990 (Rel. 14, L)
01-DEC-1992 (Rel. 24, L)
ALPHA-CONOTOXIN SI (S1)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               Postsynaptic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Phylogenetic specificity of cholinergic ligands: alpha-conotoxin
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1247 MW;
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1359 MW;
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57.1%;
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Pred. No. 1.7e+03;
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DEE90F8EF2457EBD
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dae; Conus.
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RESULT 23
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MEDLINE-84032400; PubMed-6630187;
Gray W.R., Rivier J.E., Galyean R., C
"Conotoxin MI. Disulfide bonding and
J. Biol. Chem. 258:12247-12251(1983).
                             DISULFID
DISULFID
MOD_RES
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Myers R.A., Zafarella G.C., Gray W.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Mollusca; Gastropoda; Neogastropoda; Conoidea; Conidae; Conus.
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01-DEC-1992
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01-DEC-1992 (Rel.
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Gray W.R., Luque A., Olivera B.M., Barrett J.,
"Peptide toxins from Conus geographus venom.";
J. Biol. Chem. 256:4734-4740(1981).
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Eukaryota; Metazoa; Mollusca; Gas
   SEQUENCE
                                                                                                                                                                                                                                                Biochemistry 30:9370-9377(1991).
-I- FUNCTION: ALPHA-CONOTOXINS ACT ON POSTSYNAPTIC MEMBRANES,
BIND TO THE NICOTINIC ACETYLCHOLINE RECEPTORS (NACHR) AND
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                                                                                                                                                                                                                                                                                                                                           receptors.";
                                                                                                                                                                                                                                                                                                                                                                                                            Olivera B.M.;
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                                                                                                                                                                                                                                                                                                                                                                         "Alpha-conotoxins, small
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ptide toxins from venomous Conus snails.";
u. Rev. Blochem. 57:665-700(1988).
FUNCTION: ALPHA-CONOTOXINS ACT ON POSTSYNAPTIC MEMBRANES,
BIND TO THE NICOTINIC ACETYLCHOLINE RECEPTORS (NACHR) AND
                                                                                                                                                                                                                         BIND TO
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(Rel. 24, Last sequence unit (Rel. 24, Last annotation)
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                                                                                                                                                        neurotoxin;
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Pred. No.
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DEEE831C39297EBD CRC64;
AMIDATION.
DEF1931982457EBD CRC64;
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                                                                                                                                                        receptor inhibitor;
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2.1e+03;
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RESULT 24
CXA1_CONCN
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CXALCONMA

CXALCONMA

C P01521;

T 21-JUL-1986 (Rel. 01, Created)

T 21-JUL-1986 (Rel. 01, Last sequence update)

T 01-DEC-1992 (Rel. 24, Last annotation update)

DE ALPHA-CONOTOXIN MI (MI).

OS Conus magus (Magus cone).

CELKATYOTA; Metazoa; Mollusca; Gastropoda; Caeno

Naccastropoda; Conoidea; Conidae; Conus.
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PEPTIDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BIOCHEMISTRY 38:6317-6326(1999).

-I- FUNCTION: ALPHA-CONOTOXINS ACT ON POSTSYNAPTIC MEMBRANES,
BIND TO THE MICOTINIC ACETYLCHOLINE RECEPTORS (NACHR) AND
INHIBIT THEM. THIS PEPTIDE SEEMS TO BE A POTENT AND SELECT
BLOCKER OF MUSCULAR SUBTYPE OF NACHR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Biochemical characterization and nuclear magnetic resonance structure of novel alpha-conotoxins isolated from the venom consors.";       
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01-OCT-2000 (Rel. 40, Last sequence update)
01-OCT-2000 (Rel. 40, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation update)
ALPHA-CONOTOXIN CNIA [CONTAINS: ALPHA-CONOTOXIN CNIB].
Conus consors.
Cunus consors.
Eukaryota; Metazoa; Mollusca; Gastropoda; Caenogastropoda;
Neogastropoda; Conoidea; Conidae; Conus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-99255390; PubMed-10320362;
Favreau P., Krimm I., le Gall F., Bobenrieth M.J., Lamthanh H.,
Bouet F., Servent D., Molgo J., Menez A., Letourneux Y.,
Lancelin J.-M.;
MEDLINE-83073458; PubMed-7149738;
McIntosh J.M., Cruz L.J., Hunkapiller M.W.,
"Isolation and structure of a peptide toxin
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Postsynaptic neurotoxin; Acetylcholine receptor inhibitor;
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Similarity 100.0%;
3; Conservative
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Pred. No.
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DEEE91969BF5E5BD CRC64;
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                                                                 Gastropoda; Caenogastropoda;
dae; Conus.
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 W.R., Olivera
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Gray W.R., Olivera B.M., Cruz L.J.;
"Peptide toxins from venomus Conus snails.";
Annu. Rev. Biochem. 57:665-700(1988).
-!- FUNCTION: ALPHA-CONOTOXINS ACT ON POSTSYNAPTIC MEMBRANES, THEY
BIND TO THE NICOTINIC ACETYLCHOLINE RECEPTORS (NACHR) AND THUS
INHIBIT THEM.
PIR; A01784; NTKNIM.
POSTSYNAPTIC neurotoxin; Acetylcholine receptor inhibitor; Amidation;
                                                                                                                                                                                                                                                                                                                                                                                                                                Conus magus.";
Arch: Biochem. Biophys. 218:329-334(1982).
[2]
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Gray W.R., Rivler J.E., Galyean R., Cruz L.J., Olivera B.M.;
"Conotoxin MI. Disulfide bonding and conformational states.";
J. Biol. Chem. 258:12247-12251(1983).
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                                                         14 PAC 16
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6 PAC 8
                                                                                                          l Similarity
3; Conserv
                                                                                                                                                                      14 AA;
                                                                                                            Conservative
           February
                                                                                                                                                                      1499 MW;
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            'n
                                                                                                            0
                                                                                                                       Score 20;
Pred. No.
                                                                                                                                                                        AMIDATION.
DEEE91898BF5E5BD CRC64;
              10:55:56
                                                                                                            Mismatches
                                                                                                                       DB 1; La
2.3e+03;
                                                                                                                                   Length 14;
                                                                                                            Indels
                                                                                                            0;
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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.

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Result
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum DB seq length: 0 Maximum DB seq length: 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein search, using sw model
      BLOSUM62
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103
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Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gapop 10.0 , Gapext 0.5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    268485 segs, 34193795 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /SIDS1/gcgdata/geneseq/geneseqp/AA1986.DAT:*
/SIDS1/gcgdata/geneseq/geneseqp/AA1987.DAT:*
/SIDS1/gcgdata/geneseq/geneseqp/AA1988.DAT:*
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/SIDSI/gcgdata/geneseq/geneseqp/AA11981.DAT:*
/SIDSI/gcgdata/geneseq/geneseqp/AA1982.DAT:*
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9.913 Million cell updates/sec
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Glutamic acid deca
GAD65 fragment, pe
Peptide derived fr
65 kD Glutamic aci
Glutamic acid deca
GAD65 fragment, pe
GAD65 fragment, pe
GAD65 fragment, pe
Synthetic rabbit G
Human GAD C-termin
Immunogenic peptid
Spacer peptide for
Pro-rich spacer fo
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	R42733	27	145	647	R28278	567	R67425	7	7	_	87	5	¥69593	55	(n	W42899	R63268	Y59291	$^{\circ}$	P70377	637	R66373	748	328	889	R26891	R67427	123	R61236	662	R67426	123	R56619
	Guinea pig TGase3	se3 27	deriv	of f	Sequence of cowpea	Fibronectin bindin	N-terminal fragmen	3	Thrombin inhibitor	HSV-2 protease sub	ant Ne	Antibody 15A.2 bin	l anti	Non-polio enterovi	cret		Thrombin inhibitor	Human MUC11 tandem	Partial N-terminal	Seguence of N-term	hlamydia	1 MOMP V	HIV-1 MO/LAI Nef p	-terminal of	_	HIV epitope #13.	ermina	Ly	lnate lyase I	id Al-I	al frag	4	Alginic acid Al-II

ALIGNMENTS

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RESULT
R72297
ID R7:
XX
AC R7:
XX
DT 13:
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 New polypeptide fragments of glutamic acid decarboxylase - for diagnosis and treatment of auto:immune disease, esp. insulin dependent diabetes, also related nucleic acid, vectors, anntibodies, hybridoma(s) etc.
                                                                                                                                                                                                                                                                                       Glutamic acid decarboxylase; GAD65; auotimmune insulin-dependant diabetes mellitus; stiff man
Claim 1; Page 77; 100pp; English
                                                                                                            Clare-Salzler MJ,
                                                                                                                                                                                                              23-MAR-1995. .
                                                                                                                                                                                                                                                                                                                          Glutamic acid decarboxylase (GAD65) fragment.
                                                                                                                                                                                                                                                                                                                                                                               R72297;
                                                                                                                                                                                                                                                                                                                                                                                                      R72297 standard; Peptide; 20 AA.
                                                                                    WPI; 1995-131360/17.
                                                                                                                                  (REGC ) UNIV CALIFORNIA.
                                                                                                                                                                                     24-AUG-1994;
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                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                              17-SEP-1993;
                                                                                                                                                                                                                                                                                    insulin-dependant diabetes mellitus;
                                                                                                                                                                                                                                                                                                                                                    13-NOV-1995 (first entry)
                                                                                                                                                              93US-0123859
                                                                                                                                                                                     94WO-US09478
                                                                                                             Erlander MG,
                                                                                                             Kaufman
                                                                                                             DĽ,
                                                                                                             Tobin AJ;
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disease.
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                07-JUN-1995;
21-SEP-1990;
18-JUN-1991;
                                    This sequence represents a fragment of the glutamic acid decarboxylase 65 (GAD65) protein. The invention relates to a method of ameliorating GAD associated autoimmune disorders by administering a GAD65 peptide to the patient. The method can be used for ameliorating GAD associated autoimmune disorders such as IDDM (insulin dependent diabetes mellitus) and Stiff man disease. GAD65 can also be useful for screeking drugs that alter GAD function, for generating monoclonal antibodies and in immunoassays. GAD65 is an effective diagnostic tool for preddicting IDDM and the diagnosis is quite easy. It is also possible to obtain much larger quantities of polypeptide via recombinant techniques than are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q86481 and Q86482 encode R71733 and R79105, rat and human glutamic acid decarboxylase (GAD65) respectively, from which the GAD65 fragments described in R72561-R72298 were derived. These fragments can be used to detect autoantibodies against GAD, e.g. to diagnose and treat GAD-related autoimmune disorders, such as insulin dependant diabetes mellitus or stiff man disease.
                           available
                                                                                                                                                                                            Claim 1; Column 43; 61pp; English.
                                                                                                                                                                                                                              Amellorating glutamic acid decarboxylase associated autoimmune disorders such as insulin dependent diabetes mellitus and Stiff man disease -
                                                                                                                                                                                                                                                                                                            Tobin
                                                                                                                                                                                                                                                                                                                                                                                                                        09-APR-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAD65; glutamic acid decarboxylase 65; autoimmune disorder; IDDM; insulin dependent diabetes mellitus; Stiff man disease; diagnosis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Y59560 standard;
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                           from natural sources
                                                                                                                                                                                                                                                                                                          Kaufman
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90US-0586536.
91US-0716909.
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                                                                                                                                                                                                                                                                                                          DĽ,
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100.0%;
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                                                                                                                                                                                                                                                                                                            Erlander
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Pred. No.
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7.2e-10;
hes 0;
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Sequence

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RESULT W18870

W18870;

W18870 standard;

peptide;

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                                           Query Match
Best Local Similarity
Matches 14; Conserv
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Best Local Similarity
                                                                                                                             R76642-62 are derived from human glutamic acid decarboxylase and specifically react with T-cell sub-populations isolated from recently diagnosed Type-I diabetics. Pharmaceutical compsns. contg. these peptides and those shown in R77571-72, are useful for the diagnosis of a disease or predispositions of immune system diseases, tumours, and autoimmune diseases, including diabetes. The peptides are able to detect specific T-cell subpopulations that are then used for antigen prodn.,
                                                                                                                                                                                                                                                                                                       Albert W,
Stahl P,
                                                                                                                                                                                                                                      Antigen-specific activated T-lymphocytes and their detection interaction with inventive peptide(s) of peptide-MHC complexes; useful in diagnosis of e.g. diabetes and auto:immune diseases
                                                                                                 Sequence
                                                                                                                    e.g. by reinjection.
                                                                                                                                                                                                                   Claim 1; Fig 2; 21pp;
                                                                                                                                                                                                                                                                                    WPI; 1995-264505/35
                                                                                                                                                                                                                                                                                                                                       (ENDL/)
                                                                                                                                                                                                                                                                                                                                                                      04-FEB-1994;
20-JAN-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                               DE4418091-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         diagnosis; autoimmune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   diabetes; T-cell subpopulation; detection; antigen production;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-MAR-1996 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R76662 standard;
                                                                                                                                                                                                                                                                                                                                                                                                      24-MAY-1994;
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visnpaathqdidf 14
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                                             Conservative
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                                                                                                 AA;
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94DE-4401629
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        from human glutamic acid decarboxylase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     peptide;
                                                     70.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92.2%;
                                                                                                                                                                                                                    German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          disease.
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                                            ; Score 73; DB
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0; Mismatches
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Pred. No.
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                                        DB 16;
3. 2.7e-06;
3. 0;
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RESULT
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                       W18842-70 are peptide fragments of the 65 kD human glutamic acid decarboxylase (GAD). The fragments are autoreactive substances used for diagnosis of insulin-dependent diabetes mellitus (IDDM). The diagnosis is determined by using a claimed method for diagnosis of cell-mediated diseases or a predisposition to cell-mediated diseases, which is effected by administering an autoreactive substance intradermally and establishing the diagnosis on the basis of the occurrence or lack of a positive reaction at the site of administration. The method is used for diagnosis of autoimmune and tumour diseases, preferably T-cell-mediated diseases such as rheumatoid arthritis, multiple sclerosis and especially IDDM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Skin test
involving
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAD; 65 kD; human; glutamic acid decarboxylase; autoreactive; disinsulin-dependent diabetes mellitus; IDDM; cell-mediated disease; predisposition; autoimmune; tumour; rheumatoid arthritis;
                                                                   Glutamic acid decarboxylase; GAD65; auotimmune insulin-dependant diabetes mellitus; stiff man
                                                                                                         Glutamic
                                                                                                                                                        R72298;
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23-MAR-1995
                     W09507992-A.
                                             Homo sapiens
                                                                                                                                13-NOV-1995
                                                                                                                                                                              R72298 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim
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1 visnpaathqdidf 14
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                                                                                                                                                                                                                                                                                                   Similarity
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                                                                                                         acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      for diagnosis of cell-mediated diseases, esp. intradermal admin. of auto:reactive substances
                                                                                                                                                                                                                                                                                                                                                     14
                                                                                                                                                                                                                                                                                        Conservative
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                                                                                                                                (feirst entry)
                                                                                                                                                                                                                                                                                                                                                    ₽
                                                                                                        decarboxylase (GAD65) fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2; 12pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              95DE-1026561
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ganz M,
P;
                                                                                                                                                                                                                                                                                                      100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Jung
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                                                                                                                                                                                                                                                                                                  Score 73;
Pred. No.
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                                                                                                                                                                                                                                                                                                   DB 18;
2.7e-06;
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                                                                    disorders;
disease.
                                                                                                                                                                                                                                                                                                                Length 14;
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TESULT

TS 9547

ID Y5

AC Y6

AC Y6
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Matches 10; Conserv
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Best Local S
                                                                                                                                                                                                                                                                    07-JUN-1995;
21-SEP-1990;
18-JUN-1991;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q86481 and Q86482 encode R71733 and R79105, rat and human glutamic acid decarboxylase (GAD65) respectively, from which the GAD65 fragments described in R72261-R72298 even devived. These fragments can be used to detect autoantibodies against GAD, e.g. to diagnose and treat GAD-related autoimmune disorders, such as insulin dependant diabetes mellitus or stiff man disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New polypeptide fragments of glutamic acid decarboxylase - fidiagnosis and treatment of auto:immune disease, esp. insulin dependent diabetes, also related nucleic acid, vectors,
                       Ameliorating glutamic acid decarboxylase associated autoimmune disorders such as insulin dependent diabetes mellitus and Stif disease -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAD65; glutamic acid decarboxylase 65; autoimmune disorder; IDDM; insulin dependent diabetes mellitus; Stiff man disease; diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         03-APR-2000
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                                                                                                                          WPI;
                                                                                                                                                                                                                                                                                                                                                                         09-APR-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US5998366-A.
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                                                                                                                                                                                                                        (REGC ) UNIV CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
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                                                                                                                                                                      Kaufman DL,
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90US-0586536.
91US-0716909.
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100.0%; pr
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Pred. No.
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0.015;
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                                                    Stiff man
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Claim

1:

Column

33;

61pp;

English.

This sequence represents a fragment of the glutamic acid decarboxylase 65 (GAD65) protein. The invention relates to a method of ameliorating GAD associated autoimmune disorders by administering a GAD65 peptide to the patient. The method can be used for ameliorating GAD associated autoimmune disorders such as IDDM (insulin dependent diabetes mellitus) and Stiff man disease. GAD65 can also be useful for screening drugs that alter GAD function, for generating monoclonal antibodies and in immunoassays. GAD65 is an effective diagnostic tool for predicting IDDM and the diagnosis is quite easy. It is also possible to obtain much larger quantities of polypeptide via recombinant techniques than are available from natural sources.

Query Match Best Local Similarity

50.5%;

Score 52; Pred. No.

DB 21; 0.015;

Length 20,

Sequence

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                                                                           This sequence represents a fragment of the glutamic acid decarboxylase (GAD65) protein. The invention relates to a method of ameliorating GAD associated autoimmune disorders by administering a GAD65 peptide to the patient. The method can be used for ameliorating GAD associated autoimmune disorders such as IDDM (insulin dependent diabetes mellitus) and Stiff man disease. GAD65 can also be useful for screening drugs that the control of the
alter GAD function, for generating monoclonal antibodies and immunoassays. GAD65 is an effective diagnostic tool for pred and the diagnosis is quite easy. It is also possible to obta
                                                                                                                                                                                                                                                                                     Example 11;
                                                                                                                                                                                                                                                                                                                                                                disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2000-095930/08
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21-SEP-1990;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAD65; glutamic acid decarboxylase 65; autoimmune disorder; IDDM; insulin dependent diabetes mellitus; Stiff man disease; diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAD65 fragment,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-JUN-1991;
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                                                                                                                                                                                                                                                                                                                                                                ing glutamic acid decarboxylase associated autoimmune such as insulin dependent diabetes mellitus and Stif
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kaufman DL,
                                                                                                                                                                                                                                                                               Column
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90US-0586536.
91US-0716909.
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                                                                                                                                                                                                                                                                                  61pp;
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                                                                                                                                                                                                                                                                                  English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               diagnosis;
                            predicting IDDM
                                                                                                                                                                                                                                                                                                                                                                   Stiff man
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RESULT R71643 ID R7 XX AC R7

R71643 standard;

Peptide;

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R71643

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RESULT
R28755
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                                    Query Match
Best Local S
Matches 7
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Best Local Similarity
Matches 10; Conser
                                                                                                    The peptide was synthesized based on the C-terminal sequence of human islet glutamic acid decarboxylase (GAD). It was used to raise antibody 1266 in rabbits, the antibody was used to test transfectants for production of human GAD by immunocytochemistry.
                                                                                                                                                                        Polynucleotide encoding human islet glutamic acid decarboxylase used to test for auto-antibodies against itself to diagnose insulin dependent diabetes mellitus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                larger quantities of polypeptide via recombinant techniques than are available from natural sources.
                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                          WO9220811-A.
                                                                                                                                                                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                                Glutamic acid decarboxylase; rabbit; immunoreactive
                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic rabbit GAD antibody 1266 raising peptide
                                                                                                                                                                                                                                                                                                                                                                                                                     20-APR-1993
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                                                                                                                                                                                                                                   Foster DC,
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                                                                                                                                                                                                                                                                                 15-MAY-1991;
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                  12 THQDIDFLI 20
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1 tqsdidfli 9
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                                    Similarity 7; Conserv
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                                                                                                                                                      Page 33; 45pp;
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                                     Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            Protein;
                                              34.0%;
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                                                                                                                                                      English.
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                                            Score 35;
Pred. No.
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Pred. No.
                                      Mismatches
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                                               DB
11;
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                                                       Length 19;
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Best Local
                     03-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                       Human islet cDNA (Q86046) was expressed in tk- ts13 BHK (ATCC CRL 1632). Transfectants were selected in methot medium. The immunoreactivity of the human GAD protein was tested using antibodies raised in rabbits against a peptide (R71643) of human GAD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Predicting the clinical course of diabetes in patients with non-insulin dependent diabetes mellitus - by detecting the presence of auto:antibodies to human islet cell glutamic ac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAD; glutamic-acid-decarboxylase; glutamate-decarboxylase;
non-insulin-dependent diabetes; NIDDM; diagnosis; autoantibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human GAD C-terminal
(UNBI-) UNITED BIOMEDICAL INC.
                                         03-OCT-1997;
                                                             11-APR-2000
                                                                                 US6048538-A.
                                                                                                                                                                                                              Y85070 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO9507464-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              pancreas; islet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-SEP-1995
                                                                                                    Foot and
                                                                                                                                                  Immunogenic peptide #8 derived from FMDV non-structural protein 3C.
                                                                                                                                                                        20-JUN-2000
                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                 Example II; Page 26; 62pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hagopian W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                     decarboxylase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                 10
                                                                                                                                                                                                                                                                                   12
                                                                                                                                                                                                                                                               1 tqsdidfli 9
                                                                                                                                                                                                                                                                                THQDIDFLI 20
                                                                                                                                                                                                                                                                                                    7; Conserv
                                                                                                                     mouth disease; immunoreagent;
                                                                                                    mouth
                                                                                                                                                                                                                                                                                                                                                     19
                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Karlsen
                                                                                                                                                                                                                                                                                                                                                     AA;
                                                                                                    disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             93US-0117907.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94WO-US09937.
                     97US-0943173.
                                        97US-0943173
                                                                                                                                                                                                             peptide; 18
                                                                                                                                                                                                                                                                                                              34.0%;
77.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ΑE,
                                                                                                     virus
                                                                                                                      FMDV; epitope; anti-FMDV antibody; diagnose non-structural protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Landin-Olsson M,
                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                                                                              Score 35;
Pred. No.
                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                              DB
11;
                                                                                                                                                                                                                                                                                                                        16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lernmark
                                                                                                                                                                                                                                                                                                     <u>ب</u>
                                                                                                                                                                                                                                                                                                                        Length 19;
                                                                                                                                                                                                                                                                                                                                                                                           s13 BHK cells
methotrexate
rotein obtained
                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                  a C-terminal
                                                                                                                                                                                                                                                                                                                                                                                                                                                               acid
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                                                                                                                                                                                                                                                                                                     Gaps
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Best Local S
Matches 6
                                                 Introducing genes into eukaryotic cells using receptor binding regions - especially as part glyco-protein, used in gene therapy to ensure vectors to particular cell types
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sequence of the peptide corresponds to an immunodominant region of the FMDV non-structural protein and is an immunogenic epitope specific for anti-FMDV antibodies. The invention relates to peptides derived from three non-structural FMDV proteins. The peptides are useful as immunoreagents i.e. reagent in an immunoassy in detecting antibodies to FMDV or diagnosis of FMDV infection. The immunoassays are used to screen body fluids and tissues for the presence of FMDV-reactive antibodies and aid in the diagnosis of FMDV infection and differentiate infected from
                                                                                                                                                                                                                                                                                                                           Chimeric; polyproline; beta-turn helix; facilitation; inhibition; retrovirus; envelope glycoprotein; gene therapy; cystic fibrosis; myopathy; lysosomal disorder; cancer; human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Peptide from non-structural proteins useful for detecting foot-and-mouth disease virus infection in animal comprises immunogenic epitope specific to antibodies -
                                                                                                                    WPI; 1998-018526/02.
                                                                                                                                           Cosset FL,
                                                                                                                                                                                                                   16-MAY-1997;
                                                                                                                                                                                                                                                                                                     Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                Spacer peptide for chimeric glycoprotein AMO-Delta-Pro2
                                                                                                                                                                                                                                                                                                                                                                                                            29-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                      W44912;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This sequence represents a peptide derived from the non-structural protein 3C of the foot and mouth disease virus (FMDV). The amino a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; Column 25-26; 23pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2000-328034/28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Yi Wang
                                                                                                                                                                     (CNRS ) CENT
                                                                                                                                                                                               20-MAY-1996;
                                                                                                                                                                                                                                                   27-NOV-1997.
                                                                                                                                                                                                                                                                             WO9744474-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                             W44912 standard; peptide; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the vaccinated animals.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        片
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
6; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18 AA;
                                                                                                                                            Russell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      De Chen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                      NAT RECH SCI.
                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                               96FR-0006234
                                                                                                                                                                                                                          97WO-FR00870
                                                                                                                                            SJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            33.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Shen
                                                                                                                                            Valsesia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 34; DB
Pred. No. 16;
4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'F)
                                                                                                                                            s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21;
                                                             peptide with two of a viral precise targeting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
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A novel chimeric protein for gene transfer comprises, at the N-terminus.

Example

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Page 40; 117pp; French

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RESULT
W44924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
"-+ches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                the cell surface. The two domains are separated by a peptide comprising control of the control o
                                                                                                       Introducing genes into eukaryotic cells using peptide with two receptor binding regions - especially as part of a viral glyco-protein, used in gene therapy to ensure precise targeting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Chimeric; polyproline; beta-turn helix; facilitation; inhibition; retrovirus; envelope glycoprotein; gene therapy; cystic fibrosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W44924;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     c-terminus, a
Example 3; Page 42; 117pp; French.
                                                                                                                                                                                                                                                                 WPI; 1998-018526/02.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    myopathy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pro-rich spacer for chmeric envelope glycoprotein DeltaPro2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                              (CNRS ) CENT NAT RECH SCI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              W09744474-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  W44924 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             human immunodeficiency virus) infections, etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 NPAATHQ 14
|||| ||
11 npaaphg 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    lysosomal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18
                                                                            particular cell
                                                                                                                                                                                                                                                                                                                                         Russell SJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ą,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 second
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96FR-0006234.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97WO-FR00870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     peptide; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a target molecule on the cell surface, and protein recognising a secondary target
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      32.0%;
85.7%;
                                                                                                                                                                                                                                                                                                                                         Valsesia
                                                                        types
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 33;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cein; gene therapy; cystic fibro
cancer; human immunodeficiency
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   at
                                                                                                               Of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
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A novel chimeric protein for gene transfer comprises, at the N-terminus, a protein binding a target molecule on the cell surface, and, at the C-terminus, a second protein recognising a secondary target molecule on the cell surface. The two domains are separated by a peptide comprising at least 30% Pro residues arranged so as to induce approximately 180 deg

Alginic acid Al-II-2 lyase has the N-terminal sequence R56619 and decomposes alginic acid into a sugar having a double bond between C and C5 and finally into 4-deoxy-5-ketouronic acid. The enzyme has optimal pH 8.0, optimal temp. 70 deg.C and mol.wt. 25000 and is useful for treating pulmonary cystic fibrosis caused by Pseudomonas

C4

aeruginosa

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Best Local S
Matches 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Constructed and targeted to either the epidermal growth factor receptor (EGFR) or the major histocompatibility complex (MHC) class I receptor. Peptides W44923-W44923 are examples of the spacer peptides used in the construction of the chimeric envelope glycoproteins. The pro-rich peptide acts by facilitating or inhibiting binding between the C-terminal protein and its receptor, and inhibition occurs as long as the N-terminal protein does not interact with its target. The recombinant (retro)viral particles are used for in vitro or ex vivo transfer of nucleic acid into target cells, especially for gene therapy, e.g. in cystic fibrosis, myopathy, lysosmal disorders, cancer, viral (especially human immunodeficiency
       Claim 1;
                                                Alginic acid lyase(s) which decompose alginic acid into then 4-deoxy-5-keto; uronic acid - is used for treatment
                                                                                                                                                                                                                                                                                                                                                                             Alginic acid lyase; Al-II-2; 4-deoxy-5-ketonuric acid; pulmonary cystic fibrosis; Pseudomonas aeruginosa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    regularly spread to form a polyproline beta-turn helix; whole construct especially forms part of a (retro)viral glycoprotein. A series of chimeric envelope glycoprote
                                  pulmonary cystic fibrosis
                                                                                             WPI; 1994-268676/33
                                                                                                                                                                                                    28-DEC-1992;
                                                                                                                                                                                                                                                             JP06197760-A.
                                                                                                                                                                                                                                                                                                       Misc-difference
                                                                                                                                                                                                                                                                                                                                                 Flavobacterium sp. OTC-6 (FERM P-12159).
                                                                                                                                                                                                                                                                                                                                                                                                                           Alginic acid Al-II-2 lyase N-terminal sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                     24-MAR-1995 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     virus) infections,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   folds (beta or reverse turns) in the peptide sequence,
                                                                                                                      (GNZE ) GUNZE KK.
(SAKB ) OTSUKA KAGAKU YAKUHIN KK
                                                                                                                                                                        28-DEC-1992;
                                                                                                                                                                                                                                19-JUL-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R56619 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
nes 6; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12 npaaphq 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 NPAATHO 14
    Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
9; llpp; Japanese
                                                                                                                                                                      92JP-0348465
                                                                                                                                                                                                  92JP-0348465.
                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                           /note= "not defined"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                32.0%;
85.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 33;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB
25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     beta-turn helix structure.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       glycoproteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the folds being structure. The
                                                   sugar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     envelope
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RESULT 15
R67426
ID R67426
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                                                                                                                                   RESULT
R61238
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                                                                                      Query Match
Best Local S
Matches 6
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Best Local Similarity
Matches 6; Conserv
                                                                                                                                                  This sequences represents the N-terminal fragment of alginate lyase II. Alginate lyase I and III (Al-I and Al-III) have molecular weights of 60 and 38 kb. The alginate lyases break down alginic acid or viscous substances formed by cystic fibrosis sufferers.
                                                                                                                                                                                                                                                                                        (GNZE )
       R67426 standard;
                                                                                                                                                                                                                                                             Abe S, Hisano T,
Okayama K, Yamagu
                                                                                                                                                                                                                                                                                                                                                                                                                                             N-terminal; alginate cystic fibrosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                  Sequence
                                                                                                                                                                                              Disclosure; Page 25; 36pp; Japanese.
                                                                                                                                                                                                                New alginate lyase from Pseudomonas treatment of cystic fibrosis
                                                                                                                                                                                                                                             WPI; 1994-293999/36
                                                                                                                                                                                                                                                                                                                    24-FEB-1993;
                                                                                                                                                                                                                                                                                                                                     24-FEB-1993;
                                                                                                                                                                                                                                                                                                                                                       01-SEP-1994.
                                                                                                                                                                                                                                                                                                                                                                         WO9419006-A
                                                                                                                                                                                                                                                                                                                                                                                                 Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                            Pseudomonas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Alginate lyase II N-terminal sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27-APR-1995 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R61238;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R61238 standard; Protein; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14
                                                      N
                                                              9 PAATHQDID 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9 PAATHQDID 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 paaahssid 10
                                                     paaahssid 10
                                                                                      Similarity
6; Conserv
                                                                                                                                                                                                                                                                                       GUNZE LTD.
OTSUKA KAGAKU KK.
                                                                                                                                  20
                                                                                                                                                                                                                                                             no T, Kimura
Yamaguchi H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                      Conservative
                                                                                                                                  AA;
                                                                                                                                                                                                                                                                                                                   93WO-JP00227
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                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                          /label= Undefined amino acid
       Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     32.0%;
                                                                                               32.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      lyase; Al-I; Al-III; enzyme;
        20
                                                                                                                                                                                                                                                              A, Murata K,
Yamashita T,
                                                                                      Score 33; DB Pred. No. 27; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
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Pred. No.
       B
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                                                                                                                                                                                                                          sp,
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                                                                                                                                                                                                                                                             Nishimura M;
Yonemoto Y;
                                                                                                                                                                                                                           useful for the
                                                                                                        15;
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                                                                                      Ψ
                                                                                                       Length 20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      alginic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                      acid;
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RESULT
R56620
ID R5
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Best Local Similarity
"~+~hes 6; Conserv
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                                                                                                                                                                                                                                                                                                                                                                              문
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alginic acid lyase expression gene - used in the prepnalginic acid lyase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  alginic acid lyase; 
N-terminal fragment.
                   28-DEC-1992;
                                          19-JUL-1994.
                                                                JP06197760-A.
                                                                                                          Alginic acid lyase; Al-III; 4-deoxy-5-ketonuric acid; pulmonary cystic fibrosis; Pseudomonas aeruginosa.
                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1995-040321/06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-terminal fragment of alginic acid lyase, Al-II-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R67426;
                                                                                     Flavobacterium sp.
                                                                                                                                             Alginic acid Al-III lyase N-terminal sequence
                                                                                                                                                                    24-MAR-1995
                                                                                                                                                                                           R56620;
                                                                                                                                                                                                               R56620 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Page 3; 16pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GNZE ) GUNZE KK.
(SAKB ) OTSUKA KAGAKU YAKUHIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-MAY-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-MAY-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JP06319569-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Flavobacterium
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-NOV-1994.
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                                                                                                                                                                                                                                                                                     9 PAATHQDID 17
                                                                                                                                                                                                                                                                        paaahssid 10
                                                                                                                                                                                                                                                                                                                                                                              20 AA;
                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                    (first entry)
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                    92JP-0348465
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note= "unknown, not identified
                                                                                       OTC-6 (FERM P-12159).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             flavobacterium; recombinant production;
                                                                                                                                                                                                                                                                                                                                32.0%;
                                                                                                                                                                                                                20 AA
                                                                                                                                                                                                                                                                                                                     <u>,,</u>
                                                                                                                                                                                                                                                                                                                                Score 33;
Pred. No.
                                                                                                                                                                                                                                                                                                                     Mismatches
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27;
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                                                                                                                                                                                                                                                                                                                                          Length 20;
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28-DEC-1992;

92JP-0348465

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Sequence

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RESULT
R61236
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Best Local
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     The sequences given in R61236-37 represent the N-terminal fragments of alginate lyase I and III (Al-I and Al-III), respectively. These enzymes have molecular weights of 60 and 38 kb. The alginate lyases break down alginic acid or viscous substances formed by cystic fibrosis sufferers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alginic acid Al-III lyase has the N-terminal sequence R56620 and decomposes alginic acid into a sugar having a double bond between C and C5 and finally into 4-deoxy-5-ketourconic acid. The enzyme has optimal pH 8.0, optimal temp. 70 deg.C and mol.wt. 38000 and is useful for treating pulmonary cystic fibrosis caused by Pseudomonas
                                                                          Claim 2;
                                                                                              New alginate lyase from 'Pseudomonas treatment of cystic fibrosis
                                                                                                                               WPI; 1994-293999/36
                                                                                                                                                                                                                                                               01-SEP-1994.
                                                                                                                                                                                                                                                                                     WO9419006-A
                                                                                                                                                                                                                                                                                                                               N-terminal; alginate cystic fibrosis.
                                                                                                                                                                                                                                                                                                                                                               Alginate lyase I N-terminal sequence
                                                                                                                                                                                                                                                                                                                                                                                                           R61236
                                                                                                                                                                                                                                                                                                                                                                                                                               R61236 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        aeruginosa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 2; Page 9; llpp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alginic acid lyase(s) which decompose alginic acid into sugar and then 4-deoxy-5-keto:uronic acid - is used for treatment of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GNZE
                                                                                                                                                               Abe S,
                                                                                                                                                                                                                     24-FEB-1993;
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                                                                                                                                                                                                                                                                                                         Pseudomonas sp
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                                                                                                                                                                                   (GNZE ) GUNZE LTD.
(SAKB ) OTSUKA KAGAKU KK.
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nes 5; Conserv
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| fdqavvkdptasyvdv 18
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OTSUKA KAGAKU YAKUHIN KK.
                                                                                                                                                   Hisano T, Kimura A, Murata K, K, Yamaguchi H, Yamashita T,
                                                                      Page 24; 36pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cystic fibrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
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                                                                                                                                                                                                                                          93WO-JP00227..
                                                                                                                                                                                                                                                                                                                                                                                                                               peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         31.1%;
                                                                                                                                                                                                                                                                                                                                         lyase;
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                                                                                                                                                                                                                                                                                                                                         Al-I; Al-III; enzyme; alginic acid;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          39;
                                                                                                                                                    Nishimura M;
Yonemoto Y;
                                                                                                          useful
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                               lyases
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RESULT
R67427
ID R6
XX
AC R6
XX
DT 3:
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R61237
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Best Local Similarity
Watches 5; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches S
                                                                                                                                                                                     The sequences given in R61236-37 represent the N-terminal fragments of alginate lyase I and III (Al-I and Al-III), respectively. These enzymes have molecular weights of 60 and 38 kD. The alginate lyases break down alginic acid or viscous substances formed by
                                                                                                                                                                                                                                                                                                                                                                                                                                       N-terminal; alginate cystic fibrosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R61237 standard;
                 R67427;
                                  R67427 standard;
                                                                                                                                                            Sequence
                                                                                                                                                                             cystic fibrosis sufferers.
                                                                                                                                                                                                                                 Claim 4; Page 24-25; 36pp; Japanese.
                                                                                                                                                                                                                                                 New alginate lyase from Pseudomonas treatment of cystic fibrosis
                                                                                                                                                                                                                                                                                                                                                  24-FEB-1993;
                                                                                                                                                                                                                                                                                                                                                                                    01-SEP-1994.
                                                                                                                                                                                                                                                                                                                                                                                                                      Pseudomonas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alginate lyase III N-terminal sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27-APR-1995 (first entry)
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                                                                                                                                                                                                                                                                                             Okayama
                                                                                                                                                                                                                                                                                                      Abe s,
                                                                                                                                                                                                                                                                                                                       (GNZE ) GUNZE LTD.
(SAKB ) OTSUKA KAGAKU KK.
                                                                                                                                                                                                                                                                                                                                                                   24-FEB-1993;
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3 fdqavvkdptasyvdv 18
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                                                                              3 fdgavvkdptasyvdv
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                                                                                               FFRMVISNPAATHQDI
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5; Conserv
                                                                                                                                                                                                                                                                                             Χ,
                                                                                                                                                                                                                                                                                          Hisano T, Kimura
K, Yamaguchi H,
                                                                                                                                                             20
                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                             A,
                                                                                                                                                                                                                                                                                                                                                  93WO-JP00227
                                                                                                                                                                                                                                                                                                                                                                   93WO-JP00227.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     peptide;
                                  Peptide;
                                                                                                                         31.1%; 31.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                lyase; Al-I; Al-III;
                                                                               18
                                                                                                16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                                              A, Murata
Yamashita T
                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 32;
Pred. No.
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                                   8
                                                                                                                         Score 32; DB
Pred. No. 39;
                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                           a T,
                                                                                                                                                                                                                                                            sp,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ДВ
39;
                                                                                                                                                                                                                                                                                               Yonemoto
                                                                                                                                                                                                                                                                                              Nishimura Pronemoto Y;
                                                                                                                                                                                                                                                            useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                enzyme; alginic
                                                                                                                   5
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                                                                                                                                  Length 20
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                                                                                                                   Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  acid;
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31-AUG-1995

(first entry)

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RESULT
R26891
ID R2
XX
AC R2
X
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Best Local S
Matches 5
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                      WPI; 1992-315940/38
                                                                       Murray MG, Putney SD;
                                                                                                                                                                        14-FEB-1991;
                                                                                                                                                                                                                        14-FEB-1992;
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                                                                                                                                                                                                                                                                                                                                                                    Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                  Principle neutralising domain; PND; HIV-1; gp120; envelope; vaccine; prophylaxis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HIV epitope #13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R26891;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 3; 16pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1995-040321/06.
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(SAKB )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-MAY-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-MAY-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JP06319569-A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-terminal fragment of alginic acid lyase, Al-III
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22-NOV-1994
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fdqavvkdptasyvdv 18
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                                                                                                                       REPLIGEN CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GUNZE KK.
OTSUKA KAGAKU YAKUHIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity 31.7
5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                to produce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A,
                                                                                                                                                                        91US-0655669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         93JP-0113149.
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                                                                                                                                                                                                                        92WO-US01303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              93JP-0113149.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19
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Pred. No. 39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16;
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Best Local
                                The sequences given in R26879-93 are portions of the HTV-1 principle neutralising domain (PND) protein which were used as neutralising epitopes. HTV-1 PND is an approx. 40 amino acid region of the external envelope protein gpl20 which forms a looped structure in native gpl20. The epitopes were inserted into the BC loop of a hybrid poliovirus. This construct could be used as a vaccine. The vaccine may be used for prophylaxis or treatment of human patients infected with prv-1
                                                                                                                                                                             Hybrid pollo virus useful as vaccine against HIV-1 infections contains epitope of heterologous protein inserted into the BC loop of pollo virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The sequences given in R26879-93 are portions of the HIV-1 principle neutralising domain (PND) protein which were used as neutralising epitopes. HIV-1 PND is an approx. 40 amino acid region of the external envelope protein gpl20 which forms a looped structure in native gpl20. The epitopes were inserted into the BC loop of a hybrid pollovirus. This construct could be used as a vaccine. The vaccine may be used for prophylaxis or treatment of human patients infected
                                                                                                                                                   Disclosure; Page 19; 35pp; English.
                                                                                                                                                                                                                                     WPI; 1992-315940/38.
                                                                                                                                                                                                                                                               Murray MG, Putney SD
                                                                                                                                                                                                                                                                                                                                                 14-FEB-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HIV epitope
                                                                                                                                                                                                                                                                                          (REPK ) REPLIGEN CORP.
                                                                                                                                                                                                                                                                                                                     14-FEB-1991;
                                                                                                                                                                                                                                                                                                                                                                             03-SEP-1992.
                                                                                                                                                                                                                                                                                                                                                                                                          WO9214489-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Principle neutralising domain; PND; HIV-1; gp120; envelope; vaccine; prophylaxis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-MAY-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R26884;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R26884 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   with HIV-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 22; 35pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     loop of polio virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hybrid polio virus useful as vaccine against HIV-1 infections contains epitope of heterologous protein inserted into the BC
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                                                                                                                                                                                                                                                                                                                     9108-0655669
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55.6%;
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Sequence

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RESULT
W87486
ID W8
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R13289
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Best Local Similarity
Watches 5; Conserv:
                                                                                                                                                  Query Match
Best Local S
Matches 6
          11-FEB-1999
                               W87486;
                                                                                                                                                                                                                                                                                                                                             Monoclonal antibodies to somatotropin binding protein in - do not bind to receptor and can be used alone, or with somatotropin to potentiate growth as well as in assays.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C-terminal of somatotropin binding protein.
                                                     W87486 standard;
                                                                                                                                                                                                                                                        The C-terminal of mouse SBP was prepared by solid phase peptide synthesis with the addition of Cys residue for coupling to an antigenic carrier protein. The conjugate was then used to raise MAD 6HBP 4.3 which can be used to enhance animal growth or used with somatotropin to potentiate the effect of somatotropin in with somatotropin to potentiate the effect of somatotropin in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-AUG-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R13289
                                                                                                                                                                                                       Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                              Baumach
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R13289 standard;
                                                                                                                                                                                                                          binding protein and receptors.
See also R13288.
                                                                                                                                                                                                                                                                                                                          Disclosure; Page 11; 17pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20-DEC-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MAb; receptor;
                                                                                                                                                                                                                                                 animals.
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5 mtvdnpast 13
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                                                                                                                              7 SNPAATHODID 17
                                                                                                        snsqhphqeid 14
                                                                                                                                                  Similarity 6; Conserv
                                                                                                                                                                                                                                                 It can also be used to distinguish between somatotropin
                                                                                                                                                                                                        17 AA;
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                                                                                                                                                   Conservative
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         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                             Wang BS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                      90US-0473086.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GHBP; monoclonal antibodies; epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            90EP-0125021.
                                                   peptide; 17 AA
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                                                                                                                                                             29.1%;
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                                                                                                                                                                                                                                                                                                                                                                                                             Sadeghi H,
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Pred. No.
                                                                                                                                                            Score 30;
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                                                                                                                                                                                                                                                                                                                                                                                                             Logan JS,
                                                                                                                                                            DB 12; Length 17; 72;
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                                                                                                                                                                                                                                                                                                                                                                                                             Hart
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                                                                                                                                                                                                                                                                                                                                                                    animals
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                                                                                                                                                  Gaps
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                                     CC w87481 to w87486 represent human immunodeficiency virus-1 (HIV-1) CC sequences in MO/LAI cells that were used for comparing the mutant amino cc acid sequences of the defective HIV provirus in L-2 cells. V71858 to CC V71863 represent the portions of pol protease (prot.), vpr. env (9p120 cc and gp41), and nef gene regions that were mutated as compared to w11d-CC type HIV-1 in LAI or MO/LAI cells. The invention relates to mutated CC DNA, proteins or fragments of defective HIV-1 provirus in L-2 cell line. CC The mutations result in non-infectious HIV-1 particles. Inactive, CC protease-deficient HIV-1 particles containing at least one of Nef CC truncated protein fragments are used as immunogens, particularly for CC subjects, specifically those with HIV-1 sero-negative or -positive CC subjects, specifically those with HIV-1 infection, both for prevention CC and treatment. Fragments of nef gene and fragments encoding specific CC mutant Nef proteins are also useful in hybridisation tests for diagnostic CC corresponding mutant proteins are detected in immunoassays using CC corresponding mutant proteins are detected in immunoassays using CC optionally attached to a radioisotope, chemotherapeutic agent or toxin, CC can be used to reduce the severity of HIV infections.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human immunodeficiency virus-1; HIV-1; protease; provirus; L-2 cell; mutation; Nef protein; immunogen; apoptosis; treatment; hybridisation; cell lysis; chemotherapeutic; toxin; HIV infection; MO/LAI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New nucleic acid encoding mutant or truncated forms of human immune deficiency virus proteins - used to generate non-infectious particles useful as therapeutic or prophylactic immunogens, also for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HIV-1 MO/LAI Nef protein amino acid fragment
  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1998-568304/48.
N-PSDB; V71869.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Luftig RB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          03-APR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (IMMU-) IMMUNE RESPONSE CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-OCT-1998.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Fig 1;
  17
AA;
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                                                                RESULT
                                                                                                                          Query Match
Best Local Similarity
Matches 7; Conser
Chlamydial MOMP VDI epitope
                27-JUN-1995
                                  R66373;
                                                 R66373 standard; peptide; 18
                                                                 24
                                                                                           w
                                                                                                           7
                                                                                                   SNPAATHQDIDFL 19
                                                                                         sntaatnadcawl 15
                                                                                                                            Conservative
                (first entry)
                                                                                                                                   29.1%;
53.8%;
                                                                                                                            Score 30; DB
Pred. No. 72;
2; Mismatches
                                                                                                                                  рв
72;
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                                                                                                                                           Length 17;
                                                                                                                             Indels
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Chlamydial epitope; variable domain; MOMP;

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RESULT
R66374
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mahoney cDNA clone pT7XID was modified to encode epitopes from C. trachomatis ser. A MOMP VDI. The mutagenesis cartridge was contained between PV nucleotides 2753-91 (given in 07903) which encode PV amino acids 1092-1104 (R66375) which include the BC loop of cappid protein VPI (R66386). The pollo-specific DNA within the cartridge, encoding the sequence given in R66369, was replaced by oligonucleotides encoding VDI peptides R66370-74. Viable PV expressing chlamydial immunostimulatory epitope was expressed in
                                                                                                                                         Chlamydial epitope; variable domain; MOMP; major outer membrane protein; picornavirus; diagnostic; therapeutic; capsid protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New hybrid picornaviruses expressing chlamydial epitopes to develop prods. for vaccination, diagnosis, treatment of chlamydial infections and prodn. of immunological reagents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Caldwell HD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12-MAY-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Chlamydia trachomatis serovar A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               major outer diagnostic;
                                                                                                                    Chlamydia trachomatis serovar A
                                                                                                                                                                                          Chlamydial MOMP VDI
                                                                                                                                                                                                                                         R66374;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 15; 99pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-MAY-1993;
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                                                                                                                                                                                                                 27-JUN-1995
                                                                                                                                                                                                                                                             R66374 standard; peptide; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     To obtain a poliovirus-1 (PV1)/chlamydial hybrid, the PV1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1995-006796/01.
(CONN-) CONNAUGHT LAB LTD
                      13-MAY-1993;
                                              12-MAY-1994;
                                                                      24-NOV-1994
                                                                                             WO9426900-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                          vero cells.
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mes 5; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                  18 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             membrane protein; picornavirus; poliovirus; PV1; therapeutic; capsid protein.
                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                               (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         93US-0060978
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                     9305-0060978
                                              94WO-CA00262
                                                                                                                                                                                         epitope.
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                                                                                                                                                                                                                                                                                                                                                                                                                                        New hybrid picornaviruses expressing chlamydial epitopes to develop prods. for vaccination, diagnosis, treatment of chlamydial infections and prodm. of immunological reagents
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P87468 xenopus lae	O99728 buteo jamai	O99724 dryoscopus	O31045 streptomyce	Q9myt7 sus scrofa	Q9wmg5 sigma virus	Q9ts01 bos taurus	Q94373 caenorhabdi	-	Q9qv03 rattus sp.	Q9uca0 homo sapien	Q14009 homo sapien	Q9sap8 pisum sativ	Q9t2j7 pisum sativ	Q9twn0 macrobdella	Q94374 caenorhabdi	Q94369 caenorhabd1	O52388 anabaena fl	Q9rlh1 rattus norv		Q9qvg0 rattus sp.	Q9umm9 homo sapien	homo	Q9tu55 cebus apell	Q94377 caenorhabdi	Q9trc6 canis famil

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Q1-NOV-1996
Q1-NOV-1998
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09TJ56; O1-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
P700 APOPROTEIN IB (FRAGMENT).
PSAB.
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Viruses; Retroid viruses; Retroviridae; Avian type C retroviruses.
NCBI_TaxID-11886;
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01-NOV-1996 (TIEMBLIFEL. 01, Last sequence update)
01-NOV-1998 (TIEMBLIFEL. 08, Last annotation update)
(BRYAN HIGH-TITER STRAIN) SRC (FRAGMENT).
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MEDLINE-84115080; PubMed-6319754;
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Coniferopsida; Coniferales; Pinaceae; Abies.
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SEQUENCE 23
      Abies holophylla.
Chloroplast.
Eukaryota; Viridiplantae; En
Coniferopsida; Coniferales;
NCBI_TaxID=97168;
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Chloroplast.
Enbryophyta; Tracheophyta;
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Coniferopsida; Coniferales; Pinaceae; Abies.
COBI_TaxID=97172;
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Suyama Y., Tsumura Y., Yoshimaru H.;
"Molecular phylogenetic position of Japanese Abies (Pine Chloroplast DNA sequences.";
submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases
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TEIN IB (FRAGMENT).
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IEIN IB (FRAGMENT).
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Suyama Y., Tsumura Y., Yoshimaru H.
Suyama Y., Tsumura Y., Yoshimaru H.
"Molecular phylogenetic position of
chloroplast DNA sequences.";
Submitted (JUL-1999) to the EMBL/GE
EMBL; AB029674; BAA880000.1;
Chloroplast.
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Eukaryota; Viridiplantae; Ei
Coniferopsida; Coniferales;
NCBI_TaxID=97170;
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"Molecular phylogenetic position of Japanese F
chloroplast DNA sequences.";
Submitted (JUL-1999) to the EMBL/GenBank/DDBJ
EMBL, AB029675; BAA88002.1; -.
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                    SEQUENCE FROM N.A. Suyama Y., Tsumura
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Pred. No. 2.56
4; Mismatches
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of Japanese
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                                                                                                 Tracheophyta;
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(Pinaceae) based
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Q9TJ40; CTEMBLTel. 13, Crea
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01-MAY-2000 (TTEMBLTel. 13, Last
P700 APOPROTEIN IB (FRAGMENT).
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Q9TJ42;
Q9TJ42;
Q1-42000 (TrEMBLrel. 13, Cres
01-MAY-2000 (TrEMBLrel. 13, Last
01-MAY-2000 (TrEMBLrel. 13, Last
p700 APOPROTEIN IB (FRAGMENT).
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Submitted (JUL-1999) to the EL
*EMBL; AB029676; BAA88004.1; -
Chloroplast.
NON_TER
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SEQUENCE 23 AA; 2485 MW;
Suyama Y., Tsumura Y., Yoshi

"Molecular phylogenetic post

chloroplast DNA sequences.";

Submitted (JUL-1999) to the

EMBL; AB029678; BAA88008.1;
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Eukaryota; Viridiplantae;
Coniferopsida; Coniferale;
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chloroplast DNA sequences.";
Submitted (JUL-1999) to the
EMBL; ABO29677; BAA88006.1;
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Chloroplast.
Eukaryota; Viridiplantae; Em
Coniferopsida; Coniferales;
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                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                        NCBI_TaxID=78263;
                                                                                                                                                                                                                                                                                                                                                   Abies mariesii.
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; Pinaceae;
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; Pinaceae; /
                                   EMBL/GenBank/DDBJ
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Pred. No. 2.5e
4; Mismatches
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Abies.
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2.5e+02;
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ies 8;
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                                                  SEQUENCE FROM N.A.
Suyama Y., Tsumura Y., Yosh
"Molecular phylogenetic pos
chloroplast DNA seguences."
Submitted (JUL-1999) to the
EMBL; AB029680; BAA88012.1;
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09TJ36;
01-MAY-2000
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SEQUENCE 2
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"Molecular phylogenetic posi
chloroplast DNA sequences.";
Submitted (JUL-1999) to the
EMBL; AB029679; BAA88010.1;
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Eukaryota; Viridiplantae; Embryophyta;
Coniferopsida; Coniferales; Pinaceae;
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   SEQUENCE
                                     Chloroplast.
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Pred. No. 2.5e
4; Mismatches
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Pred. No. 2.5e
4; Mismatches
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C19201F5B9BE67C8 CRC64;
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Best Local S
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Best Local
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Q9TJ32;
Q9TJ32;
Q1-MAY-2000
Q1-MAY-2000
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Q9TJ34;
Q1-MAY-2000
Q1-MAY-2000
Q1-MAY-2000
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NON_TER
SEQUENCE 23
NON_TER
                                                      "Molecular phylogenetic position chloroplast DNA sequences.";
Submitted (JUL-199) to the EMBL, AB029682; BAA88016.1; -.
                                                                                                                                                                                               Abies veitchii.
Chloroplast.
Chloroplast.
Eukaryota; Viridiplantae; En
Coniferopsida; Coniferales;
CONIGETAXID=78262;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Suyama Y., Tsumura Y., Yoshimaru "Molecular phylogenetic position chloroplast DNA sequences."; Submitted (JUL-1999) to the EMBL, AB029681; BAA88014.1; -...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Abies sibirica.
Chloroplast.
Endaryota; Viridiplantae; En
Coniferopsida; Coniferales;
COBI_TaxID-97169;
                                       Chloroplast.
                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                        P700 APOPROTEIN
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AY-2000 (TrEMBLrel. 13, Last sequence update)
AY-2000 (TREMBLrel. 13, Last annotation update)
APOPROTEIN IB (FRAGMENT).
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s; Pinaceae; F
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유.
                                                                                                                      Japanese Abies (Pinaceae)
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Matches 6; Conservative
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Q15988;
01-NOV-1996 (TIEMBLITEL 0
01-NOV-1996 (TIEMBLITEL 0
01-MAY-1999 (TIEMBLITEL 1
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01-JUL-1997 (TrEMBLrel. 04, Created)
01-JUL-1997 (TrEMBLrel. 04, Last sequence update)
01-JUL-1997 (TrEMBLrel. 04, Last annotation update)
01-JUL-1997 (TrEMBLrel. 04, Last annotation update)
HYPOTHETICAL 2.6 KDA PROTEIN.
Mycobacterium tuberculosis, and Mycobacterium bovis BGG.
Bacteria, Firmicutes; Actinobacteria; Actinobacteridae;
Actinomycetales; Corynebacterineae; Mycobacteriaceae; MyCBL_TaxID-1773, 33892;
                                                                                                                                                                                                                                                                                                            chromosome 1q.";

Genomics 15:357-364(1993).

EMBL; S56767; AAD13883.1;

NON_TER 1

SEQUENCE 20 AA; 2012 MW
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Submitted (JUN-1997) to the EMBL/GenBank/DDBJ databasemBL; Y13628; CAA73950.1; -.
EMBL; Y13627; CAA73955.1; -.
EMBL; Y13628; CAA73959.1; -.
Hypothetical protein.
SEQUENCE 25 AA; 2639 MW; 036E7271A33D1CF2 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (Human).
Eukaryota; Metazoa; C
Mammalia; Eutheria; P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-93194183; PubMed-8095486;
Nishimura D.Y., Purchio A.F., Murray J.C.;
"Linkage localization of TGFB2 and the human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            007916
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STRAIN=2296207, AND PASTEUR;
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                                                                                                                                                                                                                                                                                                                    2012 MW;
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Primates;
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                                                                                                                                                                      26.48;
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Pred. No. 2.8e
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4; Mismatches 8;
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Pred. No. 3.2e+02;
1; Mismatches 1
                                                                                                                                                                                                                                                                                                                    6BB655F09B5B5AE4 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
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2.8e+02;
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J. Clin. Microbiol. 35:2087
EMBL; U96732; AAB65632.1; -
INTERPRO; IPRO01476; -.
PFAM; PF00166; cpn10; 1.
NON_TER
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034195;
01-JAN-1998
01-JAN-1998
01-MAY-2000
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Q85713;
01-NOV-1996
01-NOV-1996
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EMBL; M1
NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                Dutta A., Wang L.H., Hanafusa T., Hanafusa H.;
"Partial nucleotide sequence of Rous sarcoma virus-29 provides evidence that the original Rous sarcoma virus was replication defective.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOV-1996 (TrEMBLrel. 01, 01-NOV-1996 (TrEMBLrel. 01, 01-NOV-1998 (TrEMBLrel. 08, 29 (RSV-29) SRC (FRAGMENT).
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"PCR amplification and comparison of nucleotide sequences from groBSL heat shock operon of Ehrlichia species.";
J. Clin. Microbiol. 35:2087-2092(1997).
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                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sequence from N.A.
MEDLINE-85265036; Pubmed-2991593;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rous sarcoma virus
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12 LLPAC
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5 LLPAC
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                                                                                                                               Similarity
5; Conserv
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5; Conservative
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                                                                                                                                                              Score 28;
Pred. No.
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3.5e+02;
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RESULT Q9S8J0

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Q94377;
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Q1-FEB-1997
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01-MAY-2000
01-MAY-2000
01-JUN-2000
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Biol. Pharm. Bull. 17:22-28(1994).
SEQUENCE 23 AA; 2638 MW; AFRKRRRTTTAGE.
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
CYTOCHROME P450 DPB-1 ISOFORM (FRAGMENT).
Canis familiaris (Dog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
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O9S8J0;

PRELIMINARY;

O1-MAY-2000 (TrEMBLrel. 13, Created)

O1-MAY-2000 (TrEMBLrel. 13, Last sequence update)

O1-JUN-2000 (TREMBLrel. 14, Last annotation updat)

O1-JUN-2000 (TREMBLREL. 14, Last annotation update)

O1-JUN-2000 (TREMBLREL. 14, Last annotation update)

O1-JUN-2000 (TREMBLREL. 14, Last annotation update)

O1-JUN-2000 (TREMBLREL. 13, Created)

ENGLY CONTROL 13, CREATED CONTROL 13,
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Marquardt H.;
"Characterization of ribosome-inactivating "Characterization of ribosome inactivating as carcing
   Caenorhabditis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Shiraga T., Iwasaki K.,
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                                     PP1-LIKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Takanaka A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=94198820; PubMed=8185738;
Shiraga T., Iwasaki K., Nozaki K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bioconjug.
SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           immunoconjugates.";
Bioconjug. Chem. 5:423-429(1994).
SEQUENCE 21 AA; 2302 MW; 54ED5E00AD12787B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=95151812; PubMed=7849072;
Siegall C.B., Gawlak S.L., Chace
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=3652;
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4; Conservative
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                           7 (TrEMBLrel. 02, 07 (TrEMBLrel. 02, 107 (TrEMBLrel. 13, 107 (TrEMBLrel. 13, 107 )
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   elegans
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lons; core eudicots; Rosidae; eurosids I;
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Pred. No. 5e+C
4; Mismatches
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5.5e+02;
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Q30216;
Q1-NOV-1996
Q1-NOV-1996
Q1-OCT-2000
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01-MAY-2000
01-MAY-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hall D., Ybazeta G., Destro-Bisol G., Petzl-Erler M.L., Di Rienz "Variability at the uridine diphosphate glucuronosyltransferase promoter in human populations and primates."; Pharmacogenetics 0:0-0(1999).

EMBL; AR135470; AAF09181.1; -.
                                                      Homo sapiens (Human).
Eukaryota; Metazoa; C
Mammalia; Eutheria; P
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INTERPRO: TEMPLE AND TRANSPORTED AND TRANSPOR
NCBI_TaxID=9606; [1]
                                                                                                                                              HLA DQA1
                                                                                                                                                                         HUMAN LEUKOCYTE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cebus apella (Brown-capped capuchin).
Eukaryota; Metazoa; Chordata; Craniat
Mammalia; Eutheria; Primates; Platyrr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-MAY-2000 (TrEMBLrel. 13, 01-MAY-2000 (TrEMBLrel. 13, 01-MAY-2000 (TrEMBLrel. 13, UDP-GLUCURONOSYLTRANSFERASE
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Zeke T., Gergely P.,
Submitted (JUL-1996)
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Rhabditidae; Peloderinae; Caenorhabditis.
NCBI_TaxID=6239;
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2000 MW;
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2816
                                                         Chordata;
Primates;
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Pred. No. 5.76
1; Mismatches
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Pred. No.
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                                                         Craniata; Vertebrata; Catarrhini; Hominidae;
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7.3e+02;
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Cebinae; Cebu
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                                                                                                                   Rattus sp.
Eukaryota; Metazoa; G
Mammalia; Eutheria; F
MCBI_TaxID=10118;
                                                                                                                                                                                                  Q9QVG0 PRELIMINARY; PRT; 20 AA.
Q9QVG0;
Q1-MAY-2000 (TrEMBLrel. 13, Created)
Q1-MAY-2000 (TrEMBLrel. 13, Last sequence update)
Q1-MAY-2000 (TrEMBLrel. 13, Last annotation update)
CLEAVED PROLACTIN-1, CLPRL-1-FRAGMENT A.
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NON_TER
SEQUENCE
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MEDILIN-91123474; PubMed-1840604;
ItO M., Mori Y., Olso Y., Saito H.;

"A single base substitution in the coding associated with familial central diabetes J. Clin. Invest. 87:725-728(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID-9606;
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MEDLINE-92143803; PubMed-1736889;
Andries M., Tilemans D., Denef C.;
"Isolation of cleaved prolactin variants that stimulate DNA synthesis
                                                                            SEQUENCE.
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5 MLPAC 9
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Best Local Similarity
Matches 4; Conserv
                                                                                           in specific cell types in rat pituitary cell aggregates in culture."; Biochem. J. 281:393-400(1992).
SEQUENCE 20 AA; 2146 MW; 89CA019A7668CBBA CRC64;
                    13 LPACDG 18
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σ
                                         Conservative
                                                  23.6%;
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Search completed: Job time: 909 sec

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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.

OM protein - protein search, using sw model

Run on: February 5, 2001, 10:37:07; Search time 58.67 Seconds (without alignments) 23.147 Million cell updates/sec

Title: Perfect score: Sequence: US-08-981-824-1 110 1 DVNYAFLHATDLLPACDGER 20

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched: 195891 segs, 67900655 residues

Total number of hits satisfying chosen parameters: 5001

Minimum DB seq length: 0 Maximum DB seq length: 25

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : PIR_66:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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Query Match 26.4%; Score 29; DB 2; Length 16; Best Local Similarity 50.0%; Pred. No. 1.7e+02; Matches ~7; Conservative 1; Mismatches 6; Indels

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ALIGNMENTS

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estrogen receptor - pig (fragments)
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 04-Dec-1992 #sequence_revision 04-Dec-1992 #text_change 30-May-1997
C;Accession: S15861
R;Thole, H.H.; Jungblut, P.W.; Jakob, F.
Biochem. J. 276, 709-714, 1991
A;Title: The proton-driven dissociation of oestradiol-receptor dimers as a page of the proton of the proton dimers as a page of the proton of the proton dimers as a page of the proton of the proton dimers as a page of the proton of the proton dimers as a page of the proton dimers and page of the proton dimers as a page of the proton dimers and page of the proton dimers are page of the proton dimers and page of the proton dimers are page of the proton dimers and page of the proton dimers are page of the pa
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Tissue Antigens 44, 19-24, 1994
A;Title: The DQA1*0104 allele is carried by DRB1*1001-
A;Reference number: I59649; MUID:95004785
A;Accession: I59649
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R;Zeke, T.; Gergely, P.; Dombradi, V.
submitted to the EMBL Data Library, July 1996
A;Description: The catalytic subunits of Ser/Thr protein phosphatases from Caenorhabdit:
A;Reference number: Z22025
A;Accession: T42014
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A;Accession: S15861
A;Molecule type: protein
A;Residues: 1-20 <BIO>
C;Keywords: steroid hormone receptor
                                                                                                                                                       A; Molecule type: DNA
A; Residues: 1-18 < RES>
                                                                                                                                                                                                                                                                                                                                                                                                                                                         human leukocyte antigen alpha chain - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 05-Nov-1999
C;Accession: I59649
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A;Experimental source: strain Bristol; clone C-1
C;Superfamily: phosphoprotein phosphatase; phosphoesterase core
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A;Molecule type: DNA
A;Residues: 1-24 <ZEK>
A;Cross-references: GDB:120638; OMIM:146880
                                       A; Gene: GDB: HLA-DQA1
                                                                           C; Genetics:
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Pred. No. 3.8e+02;
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Pred. No. 3.2e+02;
2; Mismatches 1
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protein phosphatase - Caenorhabditis elegans (fragment) C;Specites: Caenorhabditis elegans C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #tex C;Accession: T42441 R;Zeke, T.; Gergely, P.; Dombradi, V.
                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: EMBL:Z77735; PIDN:CAB01294.1
C;Superfamily: phosphoprotein phosphatase; phosp
C;Keywords: phosphoric monoester hydrolase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R;Zeke, T.; Gergely, P.; Dombradi, V. submitted to the EMBL Data Library, July 1996 A;Description: The catalytic subunits of Ser/Thr protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           phosphoprotein phosphatase (EC 3.1.3.16) - Caenorhabditis elegans (fragment) C;Species: Caenorhabditis elegans C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 02-Jun-2000 C;Accession: T42257
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R;Pr1ckril, B.C.; He, S.H.; Li, C.; Menon, N.; Choi, E.S.;
Biochem. Biophys. Res. Commun. 149, 369-377, 1987

A;Title: Identification of three classes of hydrogenase in A;Reference number: A27480; MUID:88106446

A;Accession: H27480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             hydrogenase (EC 1.18.99.1) large chain - Desulfovibrio baculatus (strain Norway N;Alternate names: hydrogenlyase; N;Esse hydrogenase C;Species: Desulfovibrio baculatus C;Species: Desulfovibrio baculatus C;Species: 08-Mar-1989 #sequence_revision 08-Mar-1989 #text_change 30-Sep-1993
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Best Local Similarity
""+"hes 5; Conserv
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A; Residues: 1-24 <ZEK>
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A; Accession: T42257
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Matches 4; Conserv
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les 5; Conserv
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                                       03-Dec-1999 #text_change
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8.1e+02;
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6e+02;
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                                         02-Jun-2000
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submitted to the EMBL Data Library, July 1996
A;Description: The catalytic subunits of Ser/Thr protein phosphatases from Caenorhabditi
A;Reference number: Z22131
A;Accession: T42441
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-24 <ZEK>
A;Cross-references: EMBL:Z77729; PIDN:CAB01288.1
C;Superfamily: phosphoprotein phosphatase; phosphoesterase core homology; phosphoprotein
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                                                                                                                                                                                                       A; Title: The amino acid sequence of eukaryotic A; Reference number: S65884; MUID:95293122 A; Accession: S65884
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C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 14-Feb-1997 #sequence_revision 13-Mar-1997 #text_change
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A;Molecule type: DNA
A;Residues: 1-18 <SMR>
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A;Accession: S58277
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C;Date: 13-Jan-1996 #sequence_revision 01-Mar-1996 #text_change 05-Nov-1999
C;Accession: S58277
R;Smrzka, O.W.; Stoger, R.; Kurzbauer, R.; Fae, I.; Fischer, G.F.; Barlow,
                                                                                                                                                      A; Molecule type: protein A; Residues: 1-9;10-16;17-20 < KAS>
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                                                                                                                                                                                                                                                                                                                                               translation
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Best Local Similarity
Matches 4; Conserv
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Best Local Similarity
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                               11 DLLPA 15
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DLLPA 6
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Pred. No. 8.8e
2; Mismatches
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9.8e+02;
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d.1e+02;
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RESULT

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Ser/Thr protein phosphatase homolog - Caenorhabditis elegans (fragment)
C;Species: Caenorhabditis elegans
C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 02-Jun-:
C;Accession: T42258
C;Accession: T42258
R;Zeke, T.; Gergely, P.; Dombradi, V.
submitted to the EMBL Data Library, July 1996
A;Description: The catalytic subunits of Ser/Thr protein phosphatases f:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Skinner, W.S.; Dennis, P.A.; Li, J.P.; Summerfelt, R.M.; Carney, R.L.; Quistad, G.B J. Biol. Chem. 266, 12873-12877, 1991
A;Title: Isolation and identification of paralytic peptides from hemolymph of the lep A;Reference number: A39855; MUID:91302298
A;Accession: B39855
A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    paralytic peptide II - tobacco hornworm
;Species: Manduca sexta (tobacco hornworm)
G;Date: 30-Dec-1991 #sequence_revision 30-Dec-1991 #text_change 03-Feb-1994
C;Accession: B39855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Description: glycine reductase complex catalyzes the reductive C; Keywords: ATP; oxidoreductase
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A; Residues: 1-23 < LUE>
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Eur. J. Blochem. 217, 791-798, 1993
A;Title: Components of glycine reductase:
A;Reference number: S38988; MUID:94039119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C;Species: Eubacterium acidaminophilum C;Date: 07-Oct-1994 #sequence_revision 01-Dec-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           glycine reductase (EC 1.4.99.) sulfhydryl protein C - N;Alternate names: glycin reductase 57K protein
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A; Residues: 1-23 <SKI>
C; Superfamily: paralytic peptide
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A; Residues: 1-23
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A; Accession: S21250
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;Schraeder, T.; Andreesen, J.R.
Eur. J. Blochem. 206, 79-85, 1992
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Cross-references: GB:L04500
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Best Local Similarity
Matches 3; Conserv
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Pred. No. 1.1e
1; Mismatches
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                                                                                             #text_change 02-Jun-2000
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C:Species: phage TW19
C:Joacies: 18-Feb-1994 #sequence_revision 24-Apr-1998 #text_change 24-Apr-1998
C:Accession: S13996
R:Inokuchi, Y:, Hirashima, A.; Watanabe, I.
J. Mol. Biol. 158, 711-730, 1982
A;Title: Comparison of the nucleotide sequences at the 3'-terminal region o: A;Reference number: S07250; MUID:83010313
A;Accession: S13996
A;Accession: S13996
A;Accession: S13996
A;Residues: 1-25 <100>
A;Residues: 1-25 <100<
A;Residues: 1
                                                                          RESULT
S61797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R;Roedin, J.; Rask, L.
Eur. J. Biochem. 192, 101-107, 1990
A;Title: Characterization of matteuc
A;Reference number: S11350; MUID:903
A;Accession: S11351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: protein
A; Residues: 1-25 < ROE>
C; Keywords: heterodimer; seed
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Species: Matteuccia struthiopteris (ostrich fern)
C;Date: 19-Mar-1997 #sequence_revision 21-Nov-1998 #text_change 01-Feb-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            spore storage protein light chain isoform M2b - ostrich fern (fragment) N; Alternate names: matteuccin
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C;Superfamily: phosphoprotein phosphatase; phosphoesterase core homology; phosphoprotein
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T-cell-specific transcription factor 1 splice form F - N; Alternate names: transcription factor TCF-1F \,
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Best Local
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Best Local Similarity 60.0%;
Matches 3; Conservative
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Best Local Similarity 36.4%;
Matches 4; Conservative
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Pred. No. 1.2e+03;
2; Mismatches 0;
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Pred. No. 1.2e+03;
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Pred. No. 1.2e+03;
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A; Molecule type: protein
A; Molecule type: protein
A; Residues: 1-18 <CHA>
A; Experimental source: strain 18D, serotype 0.42:k86:H37
C; Comment: This enterotoxin is one of several, of differ: idues of the heat-stable enterotoxin ST-I.
C; Superfamily: heat-stable enterotoxin ST
C; Keywords: enterotoxin; heat-stable protein
C; Keywords: heat-stable enterotoxin ST-2 #status experiments.
F; 1-18/Product: heat-stable enterotoxin ST-2 #status experiments.
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C;Date: 19-Mar-1997 #sequence_revision 18-Jul-1997 #text_change
C;Accession: S61797; S61879
R;Mayer, K; Wolff, E; Clevers, H.; Ballhausen, W.G.
Biochim. Biophys. Acta 1263, 169-172, 1995
A;Title: The human high mobility group (HMG)-box transcription f, A;Reference number: S61796; MUID:95367594
A;Accession: S61797
A;Molecule type: mRNA
A;Residues: 1-11 <MAY>
A;Residues: 1-11 <MAY>
                                                                                                                                                                                              heat-stable enterotoxin ST-2 - Escherichia coli
C;Species: Escherichia coli
C;Date: 06-Jul-1982 #sequence_revision 06-Jul-1982 #text_change
C;Accession: A01823
R;Chan, S.K.; Giannella, R.A.
J. Biol. Chem. 256, 7744-7746, 1981
A;Title: Amino acid sequence of heat-stable enterotoxin produced
A;Reference number: A01823; MUID:81264141
A;Accession: A01823
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QHEC2
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Best Local Similarity
Thes 6; Conserve
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A; Residues: 1-16 <SUG>
A; Experimental source: ATCC 15003
C; Keywords: antibiotic resistance
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C;Species: Streptomyces verticillus
C;Species: Streptomyces verticillus
C;Date: 25-Feb-1998 #sequence_revision 13-Mar-1998 #text_change 17-Mar-1999
C;Accession: S68730
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S68730
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A;Note: DNA was also sequenced
C;Keywords: alternative splicing; DNA binding; transcription factor
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A; Accession: S68730
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Pred. No. 7.8e+02;
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dissimilatory sulfite reductase alpha chain, membrane-bound - Desulfovibrio desulfurican C;Spekles: Desulfovibrio desulfuricans C;Date: 28-Oct-1996 #sequence_revision 13-Mar-1997 #text_change 17-Mar-1999 C;Accession: S63489
R;Steuber, J.; Arendsen, A.F.; Hagen, W.R.; Kroneck, P.M.H. Eur. J. Blochem. 233, 873-879, 1995 A;Title: Molecular properties of the dissimilatory sulfite reductase from Desulfovibrio A;Reference number: S63489; MUID:96085152
                                                                                                                                                                                                                                                                                                                                                                                                                                   hemoglobin alpha chain - African clawed frog (fragment)
C.Species: Xenopus laevis (African clawed frog)
C.Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 19-May-2000
C.Accession: I51427
R.Patient, R.K.; Elkington, J.A.; Kay, R.M.; Williams, J.G.
Cell 21, 565-573, 1980
A.;Title: Internal organization of the major adult alpha- and beta-globin genes of X.laev
A.;Reference number: I51427; MUID:81001900
A.;Accession: I51427
A.;Kocession: I51427
A.;Molecule type: DNA
A.;Residues: 1-18 cpar-
A.;Residues: 1-18 cpar-
A.;Cross-references: GB:J00975; NID:g214198; PID:g214199
C.;Superfamily: globin; globin homology
C.;Keywords: blood; oxygen carrier
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Infect. Immun. 57, 649-652, 1989
A;Title: Citrobacter freundii produces an 18-amino-acid heat-stable enterotoxin A;Reference number: A60103; MUID:89108617
A;Accession: A60103
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RESULT 24
T42259
phosphoprotein phosphatase (EC 3.1.3.16) 1 catalytic chain - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 02-Jun-2000 C;Accession: T42259 R;Zeke, T.; Gergely, P.; Dombradi, V. submitted to the EMBL Data Library, July 1996
                                                                                                                                                                                                                                                                                                                                                                                                                 paralytic peptide I - tobacco hornworm
C;Species: Manduca sexta (tobacco hornworm)
C;Date: 30-Dec-1991 #sequence_revision 30-Dec-1991 #text_change 03-Feb-1994
C;Date: 30-Dec-1991 #sequence_revision 30-Dec-1991 #text_change 03-Feb-1994
C;Accession: A3985
R;Skinner, W.S.; Dennis, P.A.; Li, J.P.; Summerfelt, R.M.; Carney, R.L.; Quistad, G.B
J, Biol. Chem. 266, 12873-12877, 1991
A;Title: Isolation and identification of paralytic peptides from hemolymph of the lep
A;Reference number: A39855; MUID:91302298
A;Accession: A39855
A;Status: preliminary
A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        dissimilatory sulfite reductase alpha chain, soluble - Desulfovibrio desulfuricans C;Species: Desulfovibrio desulfuricans C;Species: Desulfovibrio desulfuricans C;Date: 28-Oct-1996 #sequence_revision 13-Mar-1997 #text_change 17-Mar-1999 C;Accession: S63490
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S63490
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A; Molecule type: protein
A; Residues: 1-20 <STE>
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A;Molecule type:
A;Residues: 1-19
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Matches 7; Conservative
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Cardioexcitatory neuropeptide - desert locust
C;Species: Schistocerca gregaria (desert locust)
C;Date: 20-Dec-1989 #sequence_revision 20-Dec-1989 #text_change 18-Aug-2000
C;Accession: A32543
R;Robb, S.; Packman, L.C.; Evans, P.D.
Biochem. Biophys. Res. Commun. 160, 850-856, 1989
B;Itlle: Isolation, primary structure and bloactivity of Schistofurf-amide, a FMRF-amide
A;Reference number: A32543; MUID:89246543
A;Accession: A32543; MUID:89246543
Search completed: February
Job time: 739 sec
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                                                                                                                                                                                                                                                                                                                                             C;Superfamily: unassigned animal peptides
C;Keywords: amidated carboxyl end; neuropeptide
F;10/Modified site: amidated carboxyl end (Phe) #status experimental
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C;Superfamily: phosphoprotein phosphatase; phosphoesterase core homology; phosphoprotein
C;Keywords: phosphoric monoester hydrolase
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A;Reference number: Z22131
A;Accession: T42259
                                                                                                                                                                                                                                                                                                                                                                                                                      A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-10 <ROB>
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A;Molecule type: DNA
A;Residues: 1-24 <-ZEK>
A;Cross references: EMBL:Z77733; PIDN:CAB01292.1
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Best Local Similarity 57.1%;
Matches 4; Conservative
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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.

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Result
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                              Glutamic acid deca
GAD65 fragment, pe
Glutamic acid deca
GAD65 fragment, pe
GAD65 fragment, pe
Fusion immunoglobu
HIV-1 IIIB gpl20 m
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Human 65 kD glutam
Peptide derived fr
65 kD Glutamic aci
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Peptide unit of pr Pseudomonas HSP60	Heparin derived cy	pul	Partial pullanase	Human thyroglobuli	Cull peptide antig	Human secreted pro	Fragment of human	e unit of p	ion of STa-r	subtilisin		protease pe	an protea	binding p	Insulin-like growt	Amino acids 250-25	Hepatitis C virus	g	₽.	ř	KLH-conjugated pep	I affinity	epitop	from	de from the	omprisi	Helper T-cell pept	atoc	ion imi	gp120 monoc	tope	

ALIGNMENTS

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Aspergillus oryzae

Skin test for diagnosis of cell-mediated diseases, esp. diabetes involving intradermal admin. of auto:reactive substances

Donie F, En Pozzilli P,

Endl J, P, Stahl

Ganz M, l P;

Jung G,

Kientsch-engel

WPI; 1997-088254/09.

20-JUL-1995;

9507-1026561

(BOEF) BOEHRINGER MANNHEIM GMBH.

Claim 11;

Page

9;

12pp;

German

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Best Loc
Matches
              The present peptide is a framgent of the human 65 kD glutamine decarboxylase (GAD), which can be used to diagnose, or diagnose a predisposition to, a tumour or immunological disease, preferably an autoimmune disease, especially diabetes. It can also be used as a reagent to determine specific T cell subpopulations, in medicaments to treat or prevent immunological diseases, preferably autoimmune diseases, especially diabetes, to produce antigens, especially immunogens or tolerogens and to isolate specific T cell subpopulations, which can be used to produce antigens or for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        W18842-70 are peptide fragments of the 65 kD human glutamic acid decarboxylase (GAD). The fragments are autoreactive substances used for decarboxylase (GAD). The fragments are autoreactive substances used for diagnosis of insulin-dependent diabetes mellitus (IDDM). The diagnosis is determined by using a claimed method for diagnosis of cell-mediated diseases or a predisposition to cell-mediated diseases, which is effected by administrating an autoreactive substance intradermally and establishing the diagnosis on the basis of the occurrence or lack of a positive reaction at the site of administration. The method is used for diagnosis of autoimmune and tumour diseases, preferably T-cell-mediated diseases such as rheumatoid arthritis, multiple sclerosis and especially IDDM.
                                                                                                                                                                      Claim 1; Page 12; 15pp; German.
subpopulations, reinjection, op
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          determination; T cell; subpopulation; medicament; treatment;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human 65 kD
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                                                                                                                                                                                                                                                                                               Albert W,
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20; Conser
                                                                                                                                                                                                                    decarboxylase peptide(s) -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             production; antigen; immunogen; tolerogen; isolation
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autoimmune; diabetes; reagent;
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                                                                                                                                                                                                                    for diagnosis and therapy
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                                                                                                                         R76642-62 are derived from human glutamic acid decarboxylase and specifically react with T-cell sub-populations isolated from recently diagnosed Type-I diabetics. Pharmaceutical compsns. contg. these peptides and those shown in R77571-72, are useful for the diagnosis of a disease or predispositions of immune system diseases, tumours, and autoimmune diseases, including diabetes. The peptides are able to detect specific T-cell subpopulations that are then used for antigen prodn.,
                                                                                                                                                                                                                               Antigen-specific activated T-lymphocytes interaction with inventive peptide(s) of useful in diagnosis of e.g. diabetes and
                                                                                                                                                                                                                                                                                                       Albert W,
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                                                                                           Sequence
                                                                                                                                                                                                             Claim 1; Fig 2;
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20-JAN-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     diabetes; T-cell subpopulation; detection; antigen production;
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(BOEF ) BOEHRINGER MANNHEIM GMBH
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                                                                                                                  reinjection.
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ilarity 100.0%;
Conservative
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94DE-4401629.
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Pred. No.
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Pred. No. 4.7e-12;
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peptide-MHC complexes;
auto:immune diseases
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involving
                     Glutamic acid decarboxylase; GAD65; auotimmune disorders; insulin-dependant diabetes mellitus; stiff man disease.
                                                                                                                                                                                                                                                                                                                                                                by administering an autoreactive substance intradermally and establishing the diagnosts on the basis of the occurrence or lack of a positive reaction at the site of administration. The method is used for diagnosis of autoimmune and tumour diseases, preferably T-cell-mediated diseases such as rheumatoid arthritis, multiple sclerosis and especially IDDM.
                                                                                                                                                                                                                                                                                                                                                                                                                                  W18842-70 are peptide fragments of the 65 kD human glutamic acid decarboxylase (GAD). The fragments are autoreactive substances used for discarboxylase (GAD). The fragments are autoreactive substances used for disposis of insulin-dependent diabetes mellitus (IDDM). The diagnosis is determined by using a claimed method for diagnosis of cell-mediated diseases, which is effected diseases or a predisposition to cell-mediated diseases, which is effected
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                                                                                                                                                                                                                                                                                                                                         Sequence
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Pozzilli P,
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                                                                                                                                              R72267 standard; Peptide; 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             65 kD Glutamic acid decarboxylase peptide fragment 8.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-JUL-1995;
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                                                                                                                                                                                                                   vnyaflhatdllpa
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Endl J, Ganz M, P, Stahl P;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 for diagnosis of cell-mediated diseases, esp. intradermal admin. of auto:reactive substances
                                                                                                                                                                                                                                                                                                                                           14 AA;
                                                                                                                                                                                                                                                                        Conservative
                                                                                         (first entry)
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                                                                decarboxylase
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                                                                                                                                                                                                                                                                                   66.4%;
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                                                              (GAD65)
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                                                                                                                                                                                                                                                                                   Score 73;
Pred. No.
                                                                                                                                                                                                                                                                         Mismatches
                                                              fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kientsch-engel
                                                                                                                                                                                                                                                                                   DB 18;
5.1e-06;
                                                                                                                                                                                                                                                                                                Length 14;
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Best Local Similarity
Matches 13; Conserv
                                        07-JUN-1995;
21-SEP-1990;
18-JUN-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New polypeptide fragments of glutamic acid decarboxylase diagnosis and treatment of auto:immune disease, esp. insudependent diabetes, also related nucleic acid, vectors, antibodies, Mybridoma(s) etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q86481 and Q86482 encode R71733 and R79105, rat and human glutamic acid decarboxylase (GAD65) respectively, from which the GAD65 fragments described in R72261-R72298 ederived. These fragments can be used to detect autoantibodies against GAD, e.g. to diagnose and treat GAD-related autoimmune disorders, such as insulin dependant diabetes mellitus or stiff man disease.
                                                                                    09-APR-1997;
                                                                                                        07-DEC-1999
                                                                                                                            US5998366-A
                                                                                                                                                                                GAD65; glutamic acid decarboxylase 65; autoimmune disorder; IDDM;
insulin dependent diabetes mellitus; Stiff man disease; diagnosis
                                                                                                                                                                                                              GAD65 fragment,
                                                                                                                                                                                                                                     03-APR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
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Tobin AJ,
                                                                                                                                                Homo sapiens
                                                                                                                                                                     therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 11; Page 76; 100pp; English
                                                                                                                                                                                                                                                                             Y59569 standard; peptide;
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                     (REGC ) UNIV CALIFORNIA
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Kaufman DL,
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ilarity 100.0%;
Conservative (
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90US-0586536.
91US-0716909.
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                                                                                    97US-0827618
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                                                                                                                                                                                                              peptide #7.
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 Erlander
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                                                                                                                                                                                                                                                                                                                                                                                      Score 73;
Pred. No.
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7.6e-06;
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
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                    Q86481 and Q86482 encode R71733 and R79105, rat and human glutamic acid decarboxylase (GAD65) respectively, from which the GAD65 fragments described in R72261-R72298 were derived. These fragments can be used to detect autoantibodies against GAD, e.g. to diagnose and treat GAD-related autoimmune disorders, such as insulin dependant diabetes mellitus or stiff man disease.
                                                                                                                                                                                                                                                                                                      New polypeptide fragments of glutamic acid decarboxylase - for diagnosis and treatment of auto:immune disease, esp. insulin dependent diabetes, also related nucleic acid, vectors,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ameliorating glutamic acid decarboxylase associated autoimmune disorders such as insulin dependent diabetes mellitus and Stiff man disease -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Glutamic acid decarboxylase; GAD65; auotimmune insulin-dependant diabetes mellitus; stiff man
                                                                                                                                                                                                                            Claim 1; Page 76; 100pp; English.
                                                                                                                                                                                                                                                                                 antibodies, hybridoma(s)
                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1995-131360/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Clare-Salzler MJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Glutamic acid decarboxylase (GAD65) fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13-NOV-1995
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-SEP-1993;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example
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13; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
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100.0%;
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Pred. No.
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red. No. 7.6e-06;
Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   disorders;
disease.
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Best Local S
Matches 12
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21-SEP-1990;
18-JUN-1991;
                                                                              alter GAD function, for generating monoclonal antibodies and in immunoassays. GAD65 is an effective diagnostic tool for predicting II and the diagnosts is quite easy. It is also possible to obtain much larger quantities of polypeptide via recombinant techniques than are
                                                                                                                                                                                         This sequence represents a fragment of the glutamic acid decarboxylase (GAD55) protein. The invention relates to a method of ameliorating GAD associated autoimmune disorders between a GAD55 peptide to the patient. The method can be used for ameliorating GAD associated autoimmune disorders such as IDDM (insulin dependent diabetes mellitus) and Stiff man disease. GAD65 can also be useful for screening drugs that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                       available
                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Column 33; 61pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ameliorating glutamic acid decarboxylase associated autoimmune disorders such as insulin dependent diabetes mellitus and Stiff man
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAD65; glutamic acid decarboxylase 65; autoimmune disorder; IDDM; insulin dependent diabetes mellitus; Stiff man disease; diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAD65 fragment, peptide #6
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12; Conser
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90US-0586536.
91US-0716909.
                                                          natural
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100.0%;
                                                            sources.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Erlander MG
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
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0.00025;
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                                                                                                                                                                                               drugs that
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                                                                                                                                              IDDM
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Дb .
RESULT 10
W79176
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                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 12; Conserv
                                                                                                                                                                                                                                                                                                         This sequence represents a fragment of the glutamic acid decarboxylase 65 (GAD65) protein. The invention relates to a method of ameliorating GAD associated autoimmune disorders by administering a GAD65 peptide to the patient. The method can be used for ameliorating GAD associated autoimmune disorders such as IDDM (insulin dependent diabetes mellitus) and Stiff man disease. GAD65 can also be useful for screening drugs that alter GAD function, for generating monoclonal antibodies and in immunoassays. GAD65 is an effective diagnostic tool for predicting IDDM and the diagnosis is quite easy. It is also possible to obtain much larger quantities of polypeptide via recombinant techniques than are available from natural sources.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-JUN-1995;
21-SEP-1990;
18-JUN-1991;
                                                                  W79176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAD65; glutamic acid decarboxylase 65; autoimmune disorder; IDDM; insulin dependent diabetes mellitus; Stiff man disease; diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAD65 fragment, peptide #6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   03-APR-2000
        Fusion immunoglobulin heavy chain HIV gp120 T cell epitope #54
                                                                                          W79176 standard;
                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 11; Column 42; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ameliorating glutamic acid decarboxylase associated autoimmune disorders such as insulin dependent diabetes mellitus and Stiff man
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tobin AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-APR-1997;
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                                     25-JAN-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2000-095930/08.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (REGC ) UNIV CALIFORNIA.
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                                                                                                                                                                                        1 DVNYAFLHATDL 12
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90US-0586536.
91US-0716909.
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                                                                                          peptide; 19
                                                                                                                                                                                                                  58.2%; Score 64; DB 21; 100.0%; Pred. No. 0.00025; tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Erlander MG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This sequence is an epitope used in the construction of a novel fusion immunoglobulin heavy chain (IgH) protein with a mammalian, especially human, IgH chain fused in frame at its N-terminus to one or more human immune deficiency virus (HTV) gpl20 epitopes. Fusion Ig proteins and/or transfected cells are used to tolerise subjects to gpl20 epitopes and to maintain this tolerance, particularly for treatment of HTV infection, optionally together with other therapeutic/prophylactic agents such as vaccines, chemotherapeutic agents and immune response modifiers. Such proteins can be used against other diseases where an immune response is deleterious, e.g. microbial infection, tumours or autoimmune disease. Induction of tolerance suppresses production of antibodies against gpl20, so prevents or inhibits 'bystander' apoptosis of uninfected T cells that are bound to gpl20 protein, maximising induction of protective antiviral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B cell; T cell;:epitope; immunoglobulin; heavy chain; gp120; IgH; human immune deficiency virus; HIV; tolerance; treatment; therapy; prophylaxis; vaccine; chemotherapy; immune response; modifier; tumour; microbial infection; autoimmune disease; antibody; apoptosis; antiviral T cell immunity.
                                             Human immunodeficiency virus; therapy; HIV-1 infection; diagnosis; post-exposure prophylaxis; infection; cytotoxic agent targetting; neutralisation domain; BATO85; G3-136.
                                                                                                               HIV-1 IIIB gp120 monoclonal antibody antigenic peptide V15P
                                                                                                                                               06-JUN-1994 (first entry)
                                                                                                                                                                                                                 R43901 standard; peptide; 15 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 49; 154pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New fusion immunoglobulin heavy chain including gpl20 epitopes and related complete antibodies - DNA, vectors and transformed cells, used to induce tolerance to the epitopes for treatment of human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1998-506315/43.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Scott D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13-FEB-1997;
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hes 6; Conserv
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6 yaffykldiipiid 19
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                                                                                                                                                                                                                                                                                                                                                                                    34.5%;
                                                                                                                                                                                                                                                                                                                                                                                    Score 38;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                    Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                      DB 19;
                                                                                                                                                                                                                                                                                                                                                                                                      Length 19;
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Best Local :
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26-SEP-1991;
25-NOV-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   The sequence is that of a synthetic peptide V15P corresponding to a unique neutralisation domain in the V2 region of HIV-1 gp 120, it can be used in the prodn. of monoclonal antibodies (MAbs) BAT085 and G3-136. The MAbs may be used for therapy of HIV-1 infection or AIDS, post-exposure prophylaxis and diagnostis of HIV-1 infection and to reduce or eliminate virus infected T-cells by antibody-dependent cellular cytotoxicity, complement-mediated cytolysis or other cytolytic or regulatory immune mechanisms. The MAb can also be
                                                                                                                                  JP10155493-A.
Aspergillus-derived phospholipase Al gene - used for the recombinant
                     WPI; 1998-391046/34
                                                                                      03-OCT-1997;
                                                                                                            16-JUN-1998.
                                                                                                                                                                           Aspergillus
                                                                                                                                                                                                 Aspergillus
                                                                                                                                                                                                                        02-SEP-1998
                                                                                                                                                                                                                                                                   W58542 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Monoclonal antibody to HIV-1 gp120 - used for therapy of HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29-MAY-1987;
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                                          (SANY ) SANKYO CO LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                             used for targetting cytotoxic agents to HIV-1 infected cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (TANO-) TANOX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24-DEC-1987;
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nes 5; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                        15 AA;
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                                                                                                                                                                                                  oryzae phospholipase Al peptide SEQ ID NO:3
                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AIDS, post-exposure prophylaxis and diagnosis of HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BIOSYSTEMS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        87US-0057445.
87US-0137861.
91US-0692299.
91US-0767533.
91US-0797692.
                                                               96JP-0264241
                                                                                 97JP-0270967.
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                                                                                                                                                                            phospholipase Al; microbe; PLA1
                                                                                                                                                                                                                                                                                                                                                                             30.98;
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                                                                                                                                                                                                                                                                    15
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Pred. No. 19;
3; Mismatches
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WESULT ID WAY AND WAY 
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22-SEP-1992;
29-MAY-1987;
27-DEC-1987;
26-SEP-1991;
                       The present sequence represents an epitope of the gp120 protein of human immune deficiency virus (HIV)-1. The sequence comprises amino acids 169 to 183 of gp120. The specification describes monoclonal antibodies which bind to epitopes of the gp120 protein. Specifically, these antibodies are designated BAT123, 267 and 085. Monoclonal antibodies neutralise HIV-1, inhibiting both infection of T cells and formation of syncytia, so are used to treat acquired immune deficiency syndrome (AIDS) and AIDS-related complex, by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present sequence represents a phospholipase Al (PIAl) peptide derived from Aspergillus oryzae. Phospholipase Al can be prepared by culturing host cells and collecting the host cell from the culture. Di encoding mature PIAl can be used to produce recombinant phospholipase
                                                                                                                                                                                                                                                                                                                                      Monoclonal antibodies directed against regions of gp120 of human immune deficiency virus-1 - are neutralising and able to inhibit infection of T cells and formation of syncytla, used for treatment, prevention or diagnosis of acquired immune deficiency syndrome
  passive immunisation,
                                                                                                                                                                                                                                                                                 Claim 8; Column 9; 16pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1999-095002/08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-SEP-1992;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Epitope of HIV-1 gp120 protein which binds antibody BAT085.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              pitope; gp120 protein; monoclonal antibody; HIV-1; antibody BAT1 ntibody BAT267; antibody BAT285; T cell infection inhibition; yncytla formation; acquired immune deficiency syndrome; AIDS; related complex; passive immunisation; antiviral; cytotoxic;
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les 5; Conserv
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87US-0057445.
87US-0137861.
91US-0767533.
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41.7%;
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     carriers of cytotoxic
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Pred. No.
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  or antiviral
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29-MAY-1987;
24-DEC-1987;
25-APR-1989;
05-JUN-1992;
                                  antibody (Ab) which binds to an epitope within amino acid residue agent, an anti-viral agent or an agent which facilitates passage through the blood brain barrier. Also described is an antibody conjugated as above but where the Ab binds to an epitope within amino acid residue 298-312 of gpl2 which neutralises HIV-1. The present sequence represents an HIV-1 gpl20 monoclonal antibody BAT085 residue 178 to 192 from an example of the present invention. The Ab are monoclonal Ab which bind to the gpl20 protein on the envelope of HIV-1. They inhibit the infection of T-cells and also inhibit syncytium formation. The antibodies are group specific and neutralise different strains and isolates of HIV-1. The antibodies have a variety of uses, including the treatment and prevention of AIDS and AIDS related complex. They are
                                                                                                                                                                                                                                                                                           Antibody conjugate comprising monoclonal antibody - which binds to epitope within amino acid residue of gpl20 which neutralises HIV-1 conjugated with, e.g. cytotoxic agent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and in extracorporeal systems. They can also be used as immunoassay reagents (for diagnosis or measurement of viral load) and to screen for neutralising epitopes, potentially useful in vaccine developmen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                W72822
                                                                                                                                                                                                                                   The present invention describes an antibody conjugate comprising
                                                                                                                                                                                                                                                                 Example 4; Column 25;
                                                                                                                                                                                                                                                                                                                                                                                    Chang NT,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human immunodeficiency virus type 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HIV-1; gp120; epitope; monoclonal antibody; envelope; neutralise; inhibit; infection; T-cell; inhibit syncytium formation; AIDS.
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                        prevention of AIDS and AIDS related complex. ed to kill infected T-cells.
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                                               This sequence is an epitope used in the construction of a novel fusion immunoglobulin heavy chain (IgH) protein with a mammalian, especially human, IgH chain fused in frame at its N-terminus to one or more human immune deficiency virus (HIV) gpl20 epitopes. Fusion Ig proteins and/or transfected cells are used to tolerise subjects to gpl20 epitopes and to maintain this tolerance, particularly for treatment of HIV infection, optionally together with other therapeutic/prophylactic agents such as vaccines, chemotherapeutic agents and immune response modifiers. Such proteins can be used against other diseases where an immune response is delaterious, e.g. microbial infection, tumours or autolmmune disease. Induction of tolerance suppresses production of antibodies against gpl20, so prevents or inhibits 'bystander' apoptosis of uninfected T cells that are bound to gpl20 protein, maximising induction of protective antiviral or cell immunity.
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Matches 5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New fusion immunoglobulin heavy chain including gp120 epitopes and related complete antibodies - DNA, vectors and transformed cells, used to induce tolerance to the epitopes for treatment of human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B cell; T cell;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Page 38;
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19-JUN-2000 Y82873;

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Y82873 standard;

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Tumour associated antigen peptides (TAA) may be used for the treatment, prevention and cure of cancer acrancer metastases. The cancer may be breast, bladder, prostate, pancraas, ovary, thyrold, colon, stomach, head or neck cancer or a carcinoma. The tumour associated antigens are presentable to the immune system by HLA-A2 molecules and are generally between 8 to 10 amino acids in length. The amino acids located at positions 2 and 9 of the tumour associated antigens are the anchor residues which participate in the binding to MHC class I molecules, more specifically HLA-A2. More tumour associated antigens are described in GENESEQ records Y82806-Y82882. Those tumour associated antigens described in records Y82806-Y82882. Those tumour associated antigens described in records Y82806-Y82824 and Y8285-YY82899 are derived from prostate specific antigen (PSA). Those described in records Y8280-Y82836-Y82839 are derived from prostate specific antigen (PSA). Those described in records Y8280-Y82836-Y82839 are derived from prostate acid phosphotase (PAP). Those described in records Y82840-Y82846 are derived from Mucin and those described in records Y82871-Y82882 are derived from macrated From Mucin and those described in records Y82871-Y82882 are derived from macrated From Mucin and those described in records Y82871-Y82882 are derived from macrated from Teratocarcinoma derived growth factor (CRIPTO-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Tumour associated antigen peptide; TAA; cancer; carc: treatment; prevention; cure; anti-tumour vaccine; met breast; bladder; prostate; pancreas; ovary; thyroid; stomach; carcinoma; MHC Class I; HLA-A2; human; Major Histocompatibility Complex; uroplakin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tumor associated antigen peptides, especially derived from uroplakin, useful as vaccines to prevent or cure cancers including breast, bladder, prostate, pancreas, ovary, thyroid, colon and stomach -
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 19;
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prostate acid phosphatase; mucin; lactadherin;
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Query Match

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Best Local Query Match Best Local :

Similarity 5; Conserv

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                                                                                                                 w85138-283 represent helper T-cell peptides, which can bind to the human leucocyte antigens (HLA) DRAW4, DRI and DR7. The peptides are used in the course of the invention. The specification describes peptides that that induce a cytotoxic T lymphocyte (CTL) response, and T-helper peptides, that are used together to generate a CTL response f the treatment or prevention of viral, fungal, bacterial or parasitic infections (e.g. hepatitis, acquired immune deficiency syndrome or malaria) or cancer (e.g. renal or cervical carcinoma, lymphoma, prosta cancer or condyloma acuminatum). Helper T-cell peptides may be used alone to induce a helper T cell response, e.g. in cases of autoimmune disease, allograft rejection, allergy, Lyme disease, hepatitis,
                                                                                                                                                                                                                                                                                                                                  Composition containing peptide that induces cytotoxic T lymphocyte response, and helper peptide - can bind to human leucocyte antigen alleles, used to treat or prevent cancers, parasitic infections and autoimmune disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Helper T-cell peptide; human leucocyte antigen; HLA; DR4w4; cytotoxic T lymphocyte; CTL; hepatitis; autoimmune disease; acquired immune deficiency syndrome; allograft rejection; allergy; Lyme disease; hepatitis; post-streptococcal endocarditis; glomerulonephritis; food hypersensitivity.
                                                           Sequence
                                                                                                      disease, allograft rejection, allergy, Lyme disease, hepatitis, post-streptococcal endocarditis, glomerulonephritis and food
                                                                                                                                                                                                                                                                                                       Claim 11; Page 39; 51pp; English
                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1998-427679/36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-FEB-1997;
23-JAN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-JAN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Helper T·cell peptide derived from a POL protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-FEB-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W85260;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   W85260 standard;
                                                                                         hypersensitivity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (EPIM-) EPIMMUNE INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            W09832456-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hepatitis B virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 lpgcdg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13 LPACDG 18
                                                   15 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                         Sidney J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97US-0037432.
97US-0036713.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98WO-US01373.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  peptide; 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    83.3%;
29.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                            Southwood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. 2.1e+05; 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                          ß
                 Length 15;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
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Query Match
Best Local Similarity
"hehes 6; Conserv?
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R23839
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P82057
В
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                                                                                                                                                                                                                                                                  The region of GPIb found to be responsible for its ability to bind to vWF lies between amino acids 165-260. Overlapping peptides derived from this region and having terminal Cys or Lys residues are found to bind specifically to vWF. These peptides can be used to isolate vWF or factor VIII:C-vWF complex.
                                                                  Peptide from the
                                                                                     05-NOV-1992
                                                                                                                           R23839 standard;
                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                        New blood factor peptides - specifically binding to von Willebrand factor or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-JUN-1987;
02-MAR-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Glycoprotein Ib (GPIb) von Willebrand Factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P82057;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P82057 standard; protein; 20
        US5108898-A.
                          Homo sapiens
                                              FN; toxaemia;
                                                                                                                                                                                                                                                                                      See also
                                                                                                                                                                                                                                                                                                                                                        Example; Page 7; 12pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1988-362157/51
                                                                                                                                                                                                                                                                                                                                                                                                                           Kumar AA,
                                                                                                                                                                                                                                                                                                                                                                                                                                              (ZYMO-) ZYMOGENETICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-JUN-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-DEC-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EP295645-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pep-14 comprising amino acids 195-214 of Factor VIII binding peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-OCT-1990 (first entry)
                                                                                                                                              19
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                                                                                                                                                                         4 YAFLHATDLLPACD 17
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5 faflhgnpwlcnce 18
                                                                                                                                                                                                                                                                                     P82055-6 or P82058-P82060
                                                                                                                                                                                                                                                                                                                                                                                                                           Hagen FS,
                                                                                                                                                                                                                                                                  20
                                                                                                                                                                                                                  Conservative
                                                                                   (first_entry)
                                                                                                                                                                                                                                                                  AΑ;
                                            pregnancy; type III.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 87US-0062896.
88US-0162877.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               88EP-0109532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GPIb) Factor VIII binding region; Factor (vWF); factor VIII:C-vWF complexes
                                                                  ED1 domain of fibronectin.
                                                                                                                          peptide; 17
                                                                                                                                                                                                                           29.1%;
42.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                               INC.
                                                                                                                                                                                                                                                                                                                                                                                                                           Sledziewski AZ;
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                                                                                                                                                                                                                            Score 32; DB
Pred. No. 58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A
A
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                                                                                                                                                                                                                                    DB
                                                                                                                                                                                                                                    9;
                                                                                                                                                                                                                  6,
                                                                                                                                                                                                                                    Length 20;
                                                                                                                                                                                                                                                                                                                                                                            factor VIII:C
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Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The peptide was synthesised by standard methods and has a sequence based on residues 45-60 of the EDI sequence. The peptide was used to raise antibodies which will immunoreact with EDI but not with a plasma fibronectin monomer. The antibodies can be used for detecting fibronectin contg. variably included Type III repeats in a sample, thus determining patients destined to develop toxaemia, partic. preeclampsia, prior to the onset of maternal signs and symptoms of the disease, allowing for early therapeutic intervention. See also R23837-42.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Predicting toxaemia in pregnancy - by detecting elevated levels of fibronectin having variably included type III repeat region in body fluid sample
             Predicting toxaemia in of fibronectin having v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28-APR-1992.
                                                       WPI; 1992-166519/20
                                                                                                                                            18-JAN-1989;
                                                                                                                                                                                                    28-APR-1992.
                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                  Peptide from
                                                                                                                                                                                                                                                                                                                                               05-NOV-1992
                                                                                                                                                                                                                                                                                                                                                                             R23840;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1992-166519/20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-JAN-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-JAN-1989;
body fluid sample
                                                                                                                                                                       18-JAN-1989;
                                                                                                                                                                                                                               US5108898-A.
                                                                                                                                                                                                                                                                                      FN; toxaemia;
                                                                                                                                                                                                                                                                                                                                                                                                      R23840 standard; peptide; 19 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lockwood CJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (PETE/) PETERS J H.
                                                                                   Lockwood CJ,
                                                                                                              (PETE/) PETERS J H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11 DLLPACDGE 19 :| || || || ||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                  the ED1 domain of fibronectin.
                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                  Peters
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Peters
                                                                                                                                                                                                                                                                                     pregnancy; type III
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        89US-0298622
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                                                                                                                                           89US-0298622
                                                                                                                                                                         89US-0298622.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28.2%;
              n pregnancy - by detecting elevated levels variably included type III repeat region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 31;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
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Claim 10;

Page 8; 9pp;

English.

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RESULT
W96277
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Best Local
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                                       Testis-specific calpastin and peptides derived from it can be used for detecting antibodies for assessing infertility in a patient. The peptides and antibodies raised by them can also be used for inhibiting fertilisation of an egg by a sperm in a mammal. Testis specific calpastin peptides can therefore be used in the production of a vaccine used to inhibit fertilisation of an egg by sperm. The vaccine can be used as topical contraceptives in mammals, sperm. The vaccine can be used as topical contraceptives in mammals,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The peptide was synthesised by standard methods and has a sequence based on residues 45-60 of the EDI sequence. The peptide was used to raise antibodies which will immunoreact with EDI but not with a plasma fibronectin monomer. The antibodies can be used for detecting fibronectin conty. variably included Type III repeats in a sample, thus determining patients destined to develop toxaemia, partic. preeclampsia, prior to the onset of maternal signs and symptoms of the disease, allowing for early therapeutic intervention.
                                                                                                                                                                                          New testis-specific isoforms of calpastatin peptides - used in vaccines and for the production of antibodies which can inhibit the fertilisation of an egg by sperm in a mammal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Calpastin; isoform; testis; antibodies; vaccine; inhibition; fertilisation; egg; spermatazoa; sperm; contraceptive; B-cell epitope; T-cell epitope.
                                                                                                                                                               Claim 8; Page 34; 48pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B-cell epitope of testis specific isoform of calpastin
Sequence
                                                                                                                                                                                                                                                           WPI; 1999-131861/11.
                                                                                                                                                                                                                                                                                        Goldberg
                                                                                                                                                                                                                                                                                                                                                 20-JUL-1998;
21-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         W96277;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W96277 standard; Peptide; 21 AA.
                                                                                                                                                                                                                                                                                                                    (NOUN ) UNIV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9903490-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-JUN-1999 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              of the disease, all
See also R23837-42.
                            including
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11 DLLPACDGE 19
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                            dogs, cats
2
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                                                                                                                                                                                                                                                                                                                      NORTHWESTERN
AA;
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97US-0053337
                                                                                                                                                                                                                                                                                                                                                                                              98WO-US15094.
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                              other
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Pred. No. 80;
                              domestic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                              animals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13;
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Query Match

28.2%;

Score 31;

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Length

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R89429
RESULT
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Best Local Similarity
Thehes 5; Conserve
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Matches 5; Conserv
                                                                                                                                                                                                                        A novel plasmid has been developed for screening peptides which bind target genes. The plasmid comprises a sequence encoding the test peptide, a promoter comprising the target gene, and a reporter gene bound to the promoter. The present sequence represents a specifically claimed peptide with affinity to HRE-I. The plasmids are used for screening for peptides which bind to target genes. The identified peptides can be used for the treatment of conditions associated with the inhibition of the expression the genes, and treatment of conditions
 13-SEP-1996
                     R89429;
                                         R89429 standard; Protein; 15 AA
                                                                                                                                                                                                                                                                                                                                                                                                                    (YAWH )
                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                  associated with H-Ras.
                                                                                                                                                                                                                                                                                                                       Claim 41; Page 69; 127pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    03-OCT-1996;
01-APR-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Binding site; HRE-I; screening; H-Ras; target gene; plasmid; inhibition; affinity peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W30416;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   W30416 standard;
                                                                                                                                                                                                                                                                                                                                           Plasmid for screening peptide(s) which bind target treatment of conditions associated with H-Ras
                                                                                                                                                                                                                                                                                                                                                                            WPI; 1997-503115/46.
                                                                                                                                                                                                                                                                                                                                                                                                 Kato T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    31-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09-OCT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO9737030-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HRE-I affinity peptide SEQ ID NO:34.
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                                                                                                                   14 PACDGER 20
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                                                                                                                                                                                            7 AA;
                                                                                                                                        Conservative
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 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                      STEEL
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96JP-0101990.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                      CORP.
                                                                                                                                                  27.3%;
71.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
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                                                                                                                                                   Score 30; DB 18;
Pred. No. 2.1e+05;
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                                                                                                                                        Mismatches
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RESULT
W85278
ID W8
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                                                                                                                                                                                                                                                                                             R89428 and R89429 are keyhole limpet haemocyanin (KLH)-conjugated peptides with sequences based on the sequence of the human zeta protein. The peptides are used to produce monoclonal and polyclonal antibodies for use in an ELISA assay for human CD3-epsilon and zeta proteins. This assay is given as part of an example of a method for identifying an altered immune system by evaluating a patient's immune system index (ISI) in lymphocyte prepns. The method involves the determination of abnormally high or low amts. of certain immune system proteins and their interactions, e.g. T lymphocyte signal transduction proteins. Th-1 or TH-2 type biological response modifiers (BRM) and DNA binding proteins. The method is useful in diagnosing patients with immunosuppression, hyperimmunity and anticipation transduction of the method is modifiered.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Keyhole limpet haemocyanin; KLH; Interferon; IFN; probe; ISI; immune status index; TCR; T cell antigen receptor; BSM; biological response modifier; cancer; Hodgkin's disease; leukaemia; leprosy; tuberculosis; TB; leishmania; sepsis; HIV; human immunodeficiency virus; CMV; cytomegalovirus; Epstein Barr; schistosomiasis; malaria; lupus; autoimmune disease; identification;
                              16-FEB-1999
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Helper T-cell peptide derived from a Hepatitis C virus protein
                                                                                   W85278 standard;
                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                         autoimmunity and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 1;
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                                                                                                                                                                                                                                                                                             15 AA;
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                            (first entry)
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                                                                                     peptide; 15
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RESULT
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Matches 8; Conserv
                                  Hepatitis C CD8; CD4.
                                                                                                                                                                                                                                                                                                                                                                                              W85138-283 represent helper T-cell peptides, which can bind to the human leucocyte antigens (HLA) DR4w4, DR1 and DR7. The peptides are used in the course of the invention. The specification describes peptides that that induce a cytotoxic T lymphocyte (CTL) response, and T-helper peptides, that are used together to generate a CTL response for the treatment or prevention of viral, fungal, bacterial or parasitic infections (e.g. hepatitis, acquired immune deficiency syndrome or maiaria) or cancer (e.g. renal or cervical carcinoma, lymphoma, prostate cancer or condyloma acuminatum). Helper T-cell peptides may be used alone to induce a helper T cell response, e.g. in cases of autoimmune disease, allograft rejection, allergy, Lyme disease, hepatitis, post-streptococcal endocarditis, glomerulonephritis and food hypersensitivity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic. Hepatitis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Composition containing peptide that induces cytotoxic T lymphocyte response, and helper peptide - can bind to human leucocyte antigen alleles, used to treat or prevent cancers, parasitic infections and
Hepatitis C virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 11; Page 39; 51pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            07-FEB-1997;
23-JAN-1997;
                                                                                                           24-MAR-1995
                                                                                                                                      R56614;
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                                                                             HCV peptide NP-17.
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970S-0036713
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                                                  core
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Pred. No.
                                                  protein; epitope; T-cell; immunity;
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Search completed: February 5, Job time: 623 sec
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Best Local Similarity
Matches 8; Conserva
                                                                                                                                                                                                                     A T-cell stimulating peptide is claimed which is ca. 5-20 amino acids long and part of the core protein of HCV and is recognised by and stimulates T-cells. A CD8-positive T-cell stimulating peptide has the sequence given in R56606 (NP-9) or R56616 (9MA). A CD4-positive T-cell stimulating peptide has the sequence given in R56609 (NP-12) or R56614 (NP-17). Synthetic peptide mixts. (Mix A: NP-1 - NP-5, Mix B: NP-6 - NP-10, Mix C: NP-11 - NP14, MixD: NP-15 - NP-18) were used in experiments to evaluate activity.
                                                                                                                                                                                                                                                                                                                                                                 Claim 5; Fig 2; 14pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                             \ensuremath{\mathtt{T}} cell epitope present in the core protein region of Hepatitis C virus (HCV) - used for activation of cellular immunity mechanisms
                                                                                                                                                                                              Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27-AUG-1992;
10-NOV-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (ASAH ) ASAHI KASEI KOGYO KK. (INOM/) INOMAWARI M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-APR-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-JUL-1994.
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92JP-0299691.
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 195891 seqs, 67900655 residues
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ALIGNMENTS

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RESULT 2
$11383
uridine phosphorylase (EC 2.4.2.3) - Lactobacillus casei (fragment)
N;Alternate names: pyrimidine phosphorylase
C;Species: Lactobacillus casei
C;Species: Lactobacillus casei
C;Date: 19-Mar.1997 #sequence_revision 26-Feb-1998 #text_change 26-Feb-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R:Kraut, M.; Hugendieck, I.; Herwig, S.; Meyer, O. Arch. Microbiol. 152, 335-341, 1989
A;Title: Homology and distribution of CO dehydrogenase structural genes in carboxydot A;Reference number: PL0138; MUID:90055678
A;Recession: PL0142
                                                                                                                                                                                                                                     C;Accession: S11383

R;Avraham, Y: Grossowicz, N.; Yashphe, J.
Biochim. Biophys. Acta 1040, 287-293, 1990

A;Title: Purification and characterization
A;Reference number: S11383; MUID:90381286
A;Accession: S11383
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PL0142
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A;Residues: 1-25 <AVR>
A;Experimental source: strain ATCC 7469
C;Keywords: glycosyltransferase; homotetramer;
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A;Residues: 1-14 <KRA>.
C;Comment: Carbon-monoxide dehydrogenase consists
C;Keywords: oxidoreductase
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       carbon-monoxide dehydrogenase (EC 1.2.99.2) medium chain - Pseudomonas carboxydoflava
C;Species: Pseudomonas carboxydoflava
C;Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text_change 28-Apr-1993
                                            Query Match
Best Local S
Matches 5
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                                            Similarity 55.0 5; Conservative
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Pred. No. 4.5e+02;
1; Mismatches 1;
                                            Score 25; DB 2; Le
Pred. No. 8.1e+02;
1; Mismatches 3;
                                                                                                                                                                                                                                                                                  of uridine and thymidine phosphorylase
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KVIPETKLK

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S-layer protein - Bacillus thuringiensis (fragment)
(;Species: Bacillus thuringiensis
(;Date: 20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change 12-Mar-1993
(;Accession: A60476
R;Luckevich, M.D.; Beveridge, T.J.
J. Bacteriol. 171, 6656-6667, 1989
A;Title: Characterization of a dynamic S layer on Bacillus thuringiensis.
A;Reference number: A60476; MUID: 90078111
A;Accession: A60476
                                                                                                                                              R:Rjazankina, O.I.; Shchelkunov, S.N.; Muravlev, A.I.; Netesova, Mol. Biol. (Mosk.) 24, 968-976, 1990
A;Title: The molecular biological study of vaccinia virus genome A;Reference number: pN0119; MUID:91066899
A;Accession: PN0122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R;Hudson, G.S.; Mahon, J.D.; Anderson, P.A.; Gibbs, M.J.; Badger, M.R.; Andrews, T.J.; V.J.; Biol. Chem. 265, 808-814, 1990
A;Title: Comparisons of rbcL genes for the large subunit of ribulose-bisphosphate carbo: A;Reference number: A34921; MUID:90110139
A;Scatus: preliminary
A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C;Species: Flaveria linearis
C;Date: 10-Aug-1990 #sequence_revision 10-Aug-1990 #text_change 12-Apr-1995
C;Accession: A34921
C;Accession: A34921
                                                                                  A;Mölecule type: DNA
A;Residues: 1-13 <RJA>
C;Superfamily: variola major virus hypothetical protein
                                                                                                                                                                                                                                        C;Species: vaccinia virus
C;Date: 15-Jan-1993 #sequence_revision 15-Jan-1993 #text_change
C;Accession: PN0122
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A;Residues: 1-10 <LUC>
C;Comment: The S-layer, or surface array, is the
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A;Residues: 1-25 <HUD>
C;Superfamily: ribulose-bisphosphate carboxylase
C;Keywords: carbon-carbon lyase; carboxy-lyase
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Score 23; DB 2; Le
Pred. No: 9.1e+02;
1; Mismatches 3;
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Pred. No. 7e+02;
1; Mismatches
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Pred. No. 1.2e+03;
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A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-17 <ARES>
A;Cross-references: GB:S54074; NID:g264876; PIDN:AAD13872.1; PID:g4261572
C;Superfamily: serum albumin; serum albumin repeat homology
                                                                                                  A;Title: Molecular evaluation of an Alu repeat including A;Reference number: I54269; MUID:93154720 A;Accession: I54269
                                                                                                                                                               vitamin D binding protein - human (fragment)
C;Species: Homo sapiens (man)
C;Species: 11-Nov-1996 #sequence_revision 01-Nov-1996 #text_change 21-Jul-2000
C;Date: 01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change 21-Jul-2000
C;Accession: I54269
R;Braun, A.; Bichlmaier, R.; Muller, B.; Cleve, H.
Hum. Genet. 90, 526-532, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: DNA
A; Residues: 1-14 < LEV>
A; Experimental source: bone marrow
C; Keywords: immunoglobulin
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J. Exp. Med. 178, 317-329, 1993
A;Title: Molecular characterization of transgene-induced A;Reference number: PH1580; MUID:93301609
A;Accession: PH1617
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C;Species: Mus musculus (house mouse)
C;Date: 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change
C;Accession: PH1617
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A;Residues: 1-14 <LEV>
A;Experimental source: bone marrow
C;Keywords: immunoglobulin
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A;Title: Molecular characterization of transgene-induced A;Reference number: PH1580; MUID:93301609
A;Accession: PH1614
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J. Exp. Med. 178, 317-329, 1993
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8 NVYAM 12
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benzoyl-CoA ligase - Methanospirillum hungatei (fragment)
C;Species: Methanospirillum hungatei
C;Date: 19-Nov-1993 #sequence_revision 18-Nov-1994 #text_change 07-May-1999
                                                                                                                                                                                                                                                                                                                                                                                                          A:Molecule type: protein
A:Residues: 1-25 <CON-A;
A:Note: the sequence from the summary is
C:Superfamily: gastrin-releasing peptide
C:Keywords: neuropeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gastrin-releasing peptide - smaller spotted catshark (tentative sequence) (f. Species: Scyliorhinus canicula (smaller spotted catshark, smaller spotted c.) Date: 31-Mar-1990 #sequence_revision 30-Jan-1998 #text_change 31-Mar-2000 C.) Accession: $06263 #sequence_revision J.M.; Henderson, I.W.; Thim, L. Gen. Comp. Endocrinol. 68, 415-420, 1987 #s. Title: Gastrin-releasing peptide from the intestine of the elasmobranch fi. A. Reference number: $00263; MUID:88137922 #s. A. Accession: $06263
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A:Title: Novel 28-kDa secretory protein from rat olfactory epithelium.
A:Reference number: S63674; MUID:96193902
A:Accession: S63674
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563674
28 K secretory protein - rat (fragments)
C:Species: Rattus norvegicus (Norway rat)
C:Date: 28-0c1-1996 #sequence_revision 13-Mar-1997 #text_change 07-May-1999
  Appl. Microbiol. Biotechnol. 37, 789-795, 1992
A; Title: Purification and characterization of
A; Reference number: A48372; MUID:93040109
                                                          C; Accession: A48372
R; Auburger, G.; Winter, J.
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A; Residues: 1-5; 6-11; 12-17; 18-22 < PES>
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Pred. No. 1.6e
2; Mismatches
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1.6e+03;
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1.8e+03;
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                                      RESULT
C56894
intracrystalline chromoprotein 1 - Neothyris lenticularis (fragment)
.C;Species: Neothyris lenticularis
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R; Kaslan, E.; Heyer, W.D.
J. Biol. Chem. 269, 14103-14110, 1994
A;Title: Schizosaccharomyces pombe fatty acid synthase mediates
A;Reference number: A54083; MUID:94245730
A;Accession: A54083
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A54083
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A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-15 <AUB>
A;Note: sequence extracted from NCBI backbone (NCBIP:118357)
                                                                                                                                                                                                                                                                                                    p190/210, fatty acid synthase, p140exo2 strand exchange protein activator - C;Species: Schizosaccharomyces pombe
C;Date: 06-Oct-1994 #sequence_revision 18-Nov-1994 #text_change 12-Apr-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: DNA
A; Residues: 1-19 <HUC>
A; Cross-references: EMBL: X08084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R;Huck, S.; Lefranc, M.P.
FEBS Lett. 224, 291-296, 1987
A;Title: Rearrangements to the JP1, JP and A;Reference number: S03076; MUID:88083552
A;Accession: S03076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         T-cell receptor gamma chain J region (JP1) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 31-Dec-1990 #sequence_revision 31-Dec-1990 #text_chan
C;Accession: S03076
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                                                                                                                                  A; Note: sequence extracted from C; Superfamily: yeast fatty-acid
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Pred. No. 2.1e+03;
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Pred. No. 1.6e+03;
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2e+03;
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R:Cusack, M.; Curry, G.; Clegg, H.; Abbott, G. Comp. Biochem. Physiol. B 102, 93-95, 1992
A;Title: An intracrystalline chromoprotein from A;Reference number: A56894; MUID:92405551
A;Contents: Sowerby, red brachiopod shells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Date: 05-Jan-1996 #sequence_revision: C56894
C;Accession: C56894
R;Cusack, M.; Curry, G.; Clegg, H.; Abbott, G.
Comp. Biochem. Physiol. B 102, 93-95, 1992
Comp. Biochem. The Chromoprotein fro
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A;Molecule type: protein
A;Residues: 1-20 <CUS>
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A;Title: An intracrystalline chromoprotein fro A;Reference number: A56894; MUID:92405551
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C;Species: Terebratella sanguinea
C;Date: 05-Jan-1996 #sequence_revision 05-Jan-1996
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A56894
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A;Residues: 1-20 <CUS>
A;Note: sequence extracted from NCBI backbone (NCBIP:114884)
C;Keywords: chromoprotein
                                                                         A; Note: sequence extracted C; Keywords: chromoprotein
                                                                                                                A; Molecule type: protein A; Residues: 1-20 <CUS>
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C;Date: 05-Jan-1996 #sequence_revision 05-Jan-1996 #text_change 20-Jun-2000
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Score 22;
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Pred. No. 2.1e+03;
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I-ascorbate peroxidase (EC 1.11.1.11) isozyme II - spinach (fragment)
C;Species: Spinacia oleracea (spinach)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 30-Sep-1993
C;Accession: S32587; S15878
R;Kubo, A.; Saji, H.; Tanaka, K.; Tanaka, K.; Kondo, N.
Plant Mol. Biol. 18, 691-701, 1992
A;Title: Cloning and sequencing of a cDNA encoding ascorbate peroxidase from Arabidop A;Accession: S32587
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Best Local Similarity
Watches 3; Conserv
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A;Genome: chloroplast
C;Keywords: chloroplast;
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A;Accession: PC7073
A;Molecule type: protein
A;Residues: 1-9 <TSU>
C;Keywords: brain; core protein; oxidoreductase
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C;Genetics:
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A;Molecule type: DNA
A;Residues: 1-16 <SMA>
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A; Accession: T09741
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              photosystem I chain psaI - upland cotton chloroplast (fragment)
C;Species: chloroplast Gossypium hirsutum (upland cotton)
C;Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 20-Sep-1999
C;Accession: T09741
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Am. J. Bot. 85, 1301-1315, 1998
A;Title: The tortoise and the hare: choosing between
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2; Mismatches
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A;Title: Characterization of a 48-kDa nucleic-acid-binding fragment of nucleolin. A;Reference number: S02808; MUID:89153087
A;Accession: S02808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Molecule type: DNA
A;Residues: 1-18 <KAN>
A;Cross-references: EMBL:X58080; NID:g12429; PIDN:CAA41109.1; PID:g12431
C;Superfamily: photosystem I P700 apoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R:Kangasjarvi, J.; Gengenbach, B.G. submitted to the EMBL Data Library, March 1991 A;Description: Nucleotide sequence of maize plastid A;Reference number: S14660 A;Accession: S14661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C;Species: Zea mays (maize)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
C;Accession: S14661
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A;Residues: 1-17 <KUB-A;
A;Residues: 1-17 <KUB-A;
A;Residues: 1-17 <KUB-A;
A;Rote: this is a revision to the sequence from reference S15878
A;Tanaka, K.; Takeuchi, E.; Kubo, A.; Sakaki, T.; Haraguchi, K.; Kawamura, Y.
Arch. Blochem. Blophys. 286, 371-375, 1991
A;Title: Two immunologically different isozymes of ascorbate peroxidase from spinach lea
A;Reference number: S15878; MUID:91378325
A;Accession: S15878
                                                                             Query Match
Best Local Similarity
"---hes 5; Conserve
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C;Species: Bos primigenius taurus (cattle)
C;Date: 28-Feb-1990 #sequence_revision 28-Feb-1990 #text_change 18-Jun-1993
C;Accession: $02808
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A;Residues: 1,3-17 <TAN>
A;Note: this sequence has been revised in
C;Keywords: chloroplast; oxidoreductase
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Local Similarity 100.0%;
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Matches
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lipoprotein TagA precursor - Vibrio cholerae (fragment)
C;Species: Vibrio cholerae
C;Date: 18-Oct-1991 #sequence_revision 18-Oct-1991 #text_change 31-Dec-1993
C;Accession: A39108
R;Parsot, C; Taxman, E; Mekalanos, J.J.
Proc. Natl. Acad. Sci. U.S.A. 88, 1641-1645, 1991
                                                                                                                                                                                                                                                                                                       RESULT
A39108
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S51066
                                                                          A;Molecule type: DNA
A;Residues: 1-25 <PAR>
A;Cross-references: GB:M60658
C;Reywords: lipid binding; lipoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eur. J. Blochem. 226, 169-177, 1994
A; Title: Purification and characterization
A; Reference number: S51053; MUID:95045586
A; Accession: S51066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C:Species: Thermus aquaticus
C:Date: 15-Jul-1995 #sequence_revision 01-Nov-1996 #text_change 01-Nov-1996
C:Accession: S51066
                                                                                                                                         A;Title: ToxR regulates the production of lipoproteins and the expression of serum A;Reference number: A39108; MUID:91156664 A;Accession: A39108 A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; MoLecule type: protein
A; Residues: 1-21 <TSI>
A; Note: the source is designated as Thermus
C; Keywords: protein biosynthesis; ribosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R;Tsiboli, P.; Herfurth, E.; Choli,
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Pred. No. 3.2e+03
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RESULT 25
S68642
RESULT 25
S68642
RICCURS nigrocinctus (black-banded coral snake (fragment) C; Species Micrurus nigrocinctus (black-banded coral snake)
C; Date: 23-Jul-1997 *sequence_tevision 29-Aug-1997 *text_change 17-Mar-1999
C; Accession: S68642
R; Alape-Giron, A.; Stiles, B.; Schmidt, J.; Giron-Cortes, M.; Thelestam, M.; Joernvall, FEBS Lett. 380, 29-32, 1996
A; Title: Characterization of multiple nicotinic acetylcholine receptor-binding proteins A; Reference number: S68639; MUID:96181662
A; Article: Characterization of fmultiple nicotinic acetylcholine receptor-binding proteins A; Reference number: S68639; MUID:96181662
A; Article: Characterization of fmultiple nicotinic acetylcholine receptor-binding proteins A; Reference number: S68639; MUID:96181662
A; Article: Draracterization of fmultiple nicotinic acetylcholine receptor-binding proteins A; Residues: 1-25 CALA>
Ouery Match
A; Residues: 1-25 CALA>
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A; Residues: 1-25 CALA>
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Best Local Similarity 66.7%; Pred. No. 3.9e+03; Length 25;
Best Local Similarity 66.7%; Pred. No. 3.9e+03; Length 25;
Best Local Similarity 66.7%; Pred. No. 3.9e+03;
Matches 4; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
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 SwissProt_39:*
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 MCRA_METTE
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SLAP_BACTG
SLAP_LACCA
CT31_LITCI
GRP_SCYCA
PEDI_HYDAT
CR32_LITCE
CR32_LITCE
CR32_LITCE
AMAA_BACTR
MILT_ADCTR
MILT_ADCTR
EMILT_HETS
RL23_HALCU
PSEN_SYNU
DAMP_FUSNU
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ASPNG
Y15_BPI
BUK_CLOPA
UBLI_MONDO
DHAB_COWTE
NSZ_MYCTU
CLFP_HORVU
UBLI_BOVIN
ALLB_CARMA
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CAOS_RAT
HGLL_FSHE
PEDB_HYDAT
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19.831 Million cell updates/sec
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P09472 scyliorhinu
P80578 hydra atten
P56239 litoria cae
P56240 litoria cae
P37356 bacillus th
P81037 oncorhynchu
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P19914 pseudomonas
P49325 bacillus th
P19662 lactobacill
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5 bacteriopha
7 clostridium
3 monodelphis
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5 halobacteri
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carcinus ma
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fasciola he
hydra atten
mus musculu
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fusobacter1
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45	44	43	42	41	40	39	38	37	36	35	34
17	17	17	17	17.5	18	18	18	18	18	18	18
16.7	16.7	16.7	16.7	17.2	17.6	17.6	17.6	17.6	17.6	17.6	17.6
12	9	9	œ	23	25	25	25	24	24	22	22
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PA2B_VIPBO	SAP_STOVA	PGLR_DIAAB	AL12_CARMA	COXJ_ONCMY	PKI2_SOLTU	IRBP_PIG	FLB1_TREHY	IRBP_SHEEP	CRTC_CANFA	CR34_LITCE	CR31_LITSP
P31859	P24047	P81179	P81815	P80333	P24744	P12662	P80158	P12663			P56238
vipera beru	stomopneute	diaprepes a	carcinus ma	oncorhynchu	solanum tub	sus scrofa	treponema h	ovis aries	canis famil	litoria cae	litoria spl

ALIGNMENTS

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RESULT 1

MCRA_METTE

ID AG-1991 (Rel. 19, Created)
DT 01-AUG-1991 (Rel. 19, Last sequence update)
DT 01-AUG-1991 (Rel. 19, Created)
DT 01-AUG-1991 (Rel. 19, Created)
DT 01-AUG-1991 (Rel. 19, Created)
DT 01-AUG-1991 (Rel. 19, Last sequence update)
DE 01-AUG-19
DCMM_PSECF
ID DCMM_PSECF
AC P19914;
DT 01-FEB-1991
DT 01-FEB-1991
DT 01-DEC-1992
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RE SEQUENCE.

RE STRAIN-DSM 1825 / TM-1;

RE STRAIN-91193204; PubMed=2013570;

REDIINE-91193204; PubMed=2013570;

REDIINE-91193204; PubMed=2013570;

REDIINE-91193204; PubMed=2013570;

REDIINE-91193204; PubMed=2013570;

REDIINE-91193204; PubMed=2013570;

RETHANOSENESTS, FERRY COMPLEX CATALYZES THE FINAL STEP IN METHANOGENESTS, WHICH IS THE TERMINAL STEP OF ANAEROBIC

RETHANOGENESTS, WHICH IS THE TERMINAL STEP OF ANAEROBIC

CONSTRAINTON OF BIOMASS:

CONSTRAINT ACTIVITY: REDUCTION OF METHYL-COENZYME M (2-(METHYLTHIO))

ETHANESULFONIC ACTIVITY: REDUCTION OF METHYL-COENZYME M (2-(METHYLTHIO))

ETHANESULFONIC ACID) WITH 7-MERCAPTOHEPTANOYLTHREONINE PHOSPHATE

TO METHANE AND AN HETERODISULFIDE (CH(3)-S-COM + H-S-HTP = CH(4) +

COMPLEY FOR THE ENZYME COMPLEX BINDS TIGHTLY (BUT NOT COVALENTLY)

TO ONE MOLECULE OF COENZYME F430. F430 IS A YELLOW NICKEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 27.5%;
Best Local Similarity 50.0%;
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PORPHINOID.
-!- SUBUNIT: TRIMER OF AN ALPHA, A BETA, AND A GAMMA SUBUNITS.
-!- MISCELLANEOUS: THE OPTIMAL TEMPERATURE FOR ENZYME ACTIVITY IS DEGREES CELSIUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Methanosarcina thermophila.
Archaea; Euryarchaeota; Methanosarcinales; Methanosarcinaceae;
Worthanosarrina
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -!- MISCELLANEOUS: REDUCED FEREDOXIN COULD REDUCTIVELY REACTIVATE THE
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(Rel. 17, Created)
(Rel. 17, Last sequence update)
(Rel. 24, Last annotation update)
                                                                                                                                                      STANDARD;
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Pred. No.
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RESULT 3
SLAP_BACTG STANDARD; PRT; 10 AA.
ID $LAP_BACTG P49325;
DT 01-FEB-1996 (Rel. 33, Created)
DT 01-FEB-1996 (Rel. 33, Last sequence update)
DT 01-FEB-1996 (Rel. 33, Last annotation update)
DT 01-FEB-1996 (Rel. 33, Last annotation update)
DE S-LAYER PROTEIN (SURFACE LAYER PROTEIN) (FRAGMENT)
Bacillus thuringiensis (subsp. galleriae).
OC Bacteria; Firmicutes; Bacillus/Clostridium group.
OC Bacillus/Staphylococcus group; Bacillus.
RN [1]
RP SEQUENCE.
RC STRAIN-NRRL 4045;
RA MEDLINE-90078111; PubMed=2592346;
RA Luckevich M.D., Beveridge T.J.;
RA Luckevich M.D., Beveridge T.J.;
RT "Characterization of a dynamic S layer on Bacillu J. Bacteriol. 171:6656-6667(1989).
CC -i- FUNCTION: THE S-LAYER IS A PARACRYSTALLINE MC OF PROTEINS WHICH COAT THE SURFACE OF BACTER:
CC -i- SUBCELLULAR LOCATION: CELL WALL. THIS BACTER:
CC -I- SUBCELLULAR SUBCELULAR SUBCELLULAR SUBCELULAR SUBCELLULAR SUBCELLULAR SUBCELLULAR SUBCELLULAR SUBCELULAR SU
     RESULT 4
UDP_LACCA
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DT 01-FE
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Best Local S
Matches 5
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Best Local
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  UDP_LACCA
P19662;
01-FEB-1991
01-FEB-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                               Tuckevich M.D., Beveridge T.J.;
"Characterization of a dynamic S layer on Bacillus thuringiensis.";
J. Bacteriol. 171:665-6567(198).
-i- FUNCTION: THE S-LAYER IS A PARACRYSTALLINE MONO-LAYERED ASSEMBLY
OF PROTEINS WHICH COAT THE SURFACE OF BACTERIA.
-i- SUBCELLULAR LOCATION: CELL WALL. THIS BACTERIUM IS COVERED BY A
S-LAYER WITH OBLIQUE (P2) SYMMETRY.
Cell wall; S-layer.
NON_TER
10
10
10
SEQUENCE 10 AA; 1080 MW; 57AECACAB769DlA3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Kraut M., Hugendieck I., Herwig S., Meyer O.;
"Homology and distribution of CO dehydrogenase structural carboxydotrophic bacteria.";
Arch. Microbiol. 152:335-341(1989).
-i- CATALYTIC ACTIVITY: CO + H(2)O + ACCEPTOR = CO(2) + RE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bacillus thuringiensis (subsp. galleriae).
Bacteria; Firmicutes; Bacillus/Clostridium group;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pseudomonas carboxydoflava.
Bacteria; Proteobacteria; b
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||| ||:
1 MMIPRFE 7
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COPACTOR: MOLYBDENUM.

SUBUNIT: CONSISTS OF THREE POLYPEPTIDE CHAINS: LARGE, MEDIUM,
                                                                                                                                   4
                                                                                                                                                                                                                  KTFPDV
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5; Conservative
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(Rel. 17, Created)
(Rel. 17, Last sequence update)
                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                 STANDARD;
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71.4%;
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Pred. No.
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Pred. No. 3.2e+02;
1; Mismatches 1
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2e+02;
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Query Match Best Local Similarity

50 50

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Score Pred.

23; No.

DB 1; 7.7e+02;

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RESULT
CT31_L1
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Best Local :
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CT31_LITCI STANDARY.

P81851; P81852; P81853;

p81851; P81852; P81853;

30-MAY-2000 (Rel. 39, Last sequence update)

30-MAY-2000 (Rel. 39, Last annotation update)

30-MAY-2000 (Rel. 39, Last annotation update)

CITROPIN 3.1.2 [CONTAINS: CITROPIN 3.1.1; CITROPIN 3.1].

Litoria citropa (Australian blue mountains tree frog).

Litoria citropa (Australian blue mountains tree frog):

Finkaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Finkaryota; Metazoa; Chordata; Neobatrachia; Bufonoidea; Hylidae;
Wegener K.L., Wabnitz P.A., Carver J.A., Bowie J.H., Chia B.C.S., Wallace J.C., Tyler M.J.;

### Host defence peptides from the skin glands of the Australian blue mountains tree-frog Litoria citropa. Solution structure of the antibacterial peptide citropin 1.1.";

### EURING SPECIFICITY: DORSAL AND SUBMENTAL SKIN GLANDS.

### PEPTIDE 1 24 CITROPIN 3.1.1.

### PEPTIDE 1 22 CITROPIN 3.1.1.
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UNSURE
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SEQUENCE
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INTERPRO; IRRO00845; ...
PROSITE; PS01232; PNP_UDP_1; PARTIM
Transferase; Glycosyltransferase.
1 1 0R S.
OR T.
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                                                                                                                                                                                                                                                                                                                                                         TISSUE-SKIN;
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MEDLINE-90381286; PubMed-2119230;
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                                                                                                                                                                                                                                                                                                                         MEDLINE=99435977; PubMed=10504394;
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(EC 2.4.2.3) (UDRPASE) (FRAGMENT).
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Pred. No.
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01-OCT-1996
01-OCT-1996
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01-MAR-1989 (Rel. 10, Last sequence update)
01-MAR-1992 (Rel. 21, Last amoutation update)
01-MAR-1992 (Rel. 21, Last amoutation update)
GASTRIN-RELEASING PEPTIDE (GRP).
Scyliorhinus canicula (Spotted dogfish) (Spotted catshark).
Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Chondrichthyes;
Elasmobranchii; Galeomorphii; Galeoidea; Carcharhiniformes;
Scyliorhinidae; Scyliorhinus.
                                                      Morphogen.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conlon J.M., Henderson I.W., Thim L.;
"Gastrin-releasing peptide from the intestine of the fish, Scyllorhinus canicula (common dogfish).";
Gen. Comp. Endocrinol. 68:415-420(1987).
-!- FUNCTION: GRP STIMULATES GASTRIN RELEASE AS WELL GASTROINTESTINAL HORMONES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GRP_SCYCA
P09472;
                                                                                                          peptides from Hydra vulgaris.";
Development 122:1941-1948(1996).
-!- FUNCTION: MORPHOGENETICALLY ACTIVE
                                                                                                                                                 "Isolation and characterization of two
                                                                                                                                                                                                                                                                                                                                                                                       PEDI_HYDAT P80578;
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PROSITE; PS00257; BOMBESIN;
Bombesin family; Amidation.
MOD_RES 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE-88137922; PubMed-3436516;
Conlon J.M., Henderson I.W., Thim L.;
                                                                                                                                                                                                     MEDLINE-96232307; PubMed-8674432;
                                                                                                                                                                                                                         SEQUENCE.
                                                                                                                                                                                                                                                          Hydridae;
                                                                                                                                                                                                                                                                           Hydra attenuata (Hydra) (Hydra vulgaris).
Eukaryota; Metazoa; Cnidaria; Hydrozoa; H
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                                                                                          DEVELOPMENT.
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4; Conser
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(Rel. 34, Last annotation
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Pred. No.
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B735F911B89007F8 CRC64;
 Score
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Matches 4; Conserv
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Best Local Similarity
Matches 3; Conser
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15-JUL-1998
15-JUL-1998
15-JUL-1998
CAERIN 3.3.
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P56239;
15-JUL-1998
15-JUL-1998
15-JUL-1998
                                       Litoria caerula.";

J. Chem. Res. 138:910-936(1993).

I. FUNCTION: ANTIBACTERIAL PEPTIDE, THAT ADOPTS AN ALPHA HELICAL CONFORMATION WHICH CAN DISRUPT BACTERIAL MEMBRANES. EACH CAER. DISPLAYS A DIFFERENT ANTIMICROBIAL SPECIFICITY.

ITSSUE SPECIFICITY: SECRETED BY THE SKIN PAROTOID AND/OR ROSTI
                                                                                                                      TISSUE-PAROTOID GLAND;
Stone D.J.M., Waugh R.J.,
Peptides from Australian
                                                                                                                                                                                          Eukaryota; Metazoa; Chordata;
Amphibia; Batrachia; Anura; Ne
Litoria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -I- MASS SPECTROMETRY: MW-2397; METHOD-FAB Antibiotic; Amphibian skin; Amidation. MOD_RES 22 22 AMIDATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Litoria caerula.";

J. Chem. Res. 138:910-936(1993).

-I- FUNCTION: ANTIBACTERIAL PEPTIDE, THAT ADOPTS AN ALPHA HELICAL CONFORMATION WHICH CAN DISRUPT BACTERIAL MEMBRANES. EACH CAER:
DISPLAYS A DIFFERENT ANTIMICROBIAL SPECIFICITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Peptides from Australian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa;
Amphibia; Batrachia;
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TISSUE-PAROTOID GLAND;
-1- MASS SPECTROMETRY: MW-2424; METHOD-FAB
Antibiotic; Amphibian skin; Amidation.
                                                                                                                                                                                                                                     Litoria caerulea.
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37.5%;
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                                                                                                                         Bowie J.H., frogs. The s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a; Craniata; Vertebrata; Euteleostomi;
Neobatrachia; Bufonoidea; Hylidae;
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Pred. No. 1.5e
4; Mismatches
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AMIDATION.
1D440B3829D4367C
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3; Mismatches
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1.5e+03;
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                                          AND/OR ROSTRAI
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NON_TER
SEQUENCE
                                                                                                                         01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
15-DEC-1998 (Rel. 37, Last annotation update)
11-DEC-1998 (Rel. 37, Last annotation update)
MILTPALN (EC 3.4.22.-) (FRACMENT).
Oncorhynchus keta (Chum salmon).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOD_RES
SEQUENCE
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Bacteria; Firmicutes; Bacillus/Clostridium group;
Bacillus/Staphylococcus group; Bacillus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-OCT-1994 (Rel. 30, Created)
01-OCT-1994 (Rel. 30, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
N-ACYL-L-AMINO ACID AMIDOHYDROLASE (EC 3.5.1.14) (L-AMINOACYLASE)
                                                                                                                    Protacanthopterygii;
                                                                                                                                                                                                                 MILT_ONCKE P81037;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Purification and characterization.";
Agric. Biol. Chem. 51:2793-2800(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE, AND CHARACTERIZATION Cho H.-Y., Tanizawa K., Tanaka
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AMAA_BACTR P37356;
                                                        Kawabata C., Ichishima E.;
"Miltpain, new cysteine proteinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ANION + A L-AMINO ACID.
-!- COFACTOR: ACTIVATED BY COBALT (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BACTR
                                  Comp.
                                            Oncorhynchus keta.",
                                                                               MEDLINE=97397031; PubMed=9253183;
                                                                                            SEQUENCE, AND CHARACTERIZATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Thermostable aminoacylase from Bacillus thermoglucosidius
                                                                                                                                                                                                                                                                                                                                                                                                                                                      -!- SUBUNIT: HOMOTETRAMER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -i- CATALYTIC ACTIVITY: A N-ACYL-L-AMINO ACID + H(2)0 =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (FRAGMENT).
                                                                                                                                                                                                                                                                                                              12 KMFPEVKE 19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 LWEKIKEK 9
p. Biochem. Physiol. 117B:445-452(1997).
FUNCTION: CYSTEINE PROTEINASE THAT HYDROLYSES BASIC PROTEINS.
HYDROLYZE BASIC PROTEINS SUCH AS HISTONE, SALMINE AND CLUPAIN
NOT MILK CASEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY: BELONGS AMA/HIPO/HYUC FAMILY
                                                                                                                                                                                                                                                                                       RLVDEVKE
                                                                                                                                                                                                                                                                                                                                                                                                                    Cobalt.
                                                                                                                                                                                                                                                                                                                                                                                            24
24 AA;
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AA;
                                                                                                                                                                                                                             STANDARD;
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2846 MW;
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                                                                                                                    Salmoniformes;
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Pred. No. 1.5e
4; Mismatches
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Pred. No.
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1D440B2200D4367C
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                                                           from
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                                                                                                                    Salmonidae;
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1.5e+03;
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1.7e+03
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                                                                                                                   Oncorhynchus.
                                                          of,
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            CLUPAINE
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HEMH_THETS
ID HEMH_TH
AC P80155;
DT 01-DEC:-
DT 01-DEC:-
DT 01-DEC:-
DT 15-JUL:-
DT 15-JUL:-
DT 15-JUL:-
DT 15-JUL:-
CC Eukaryo
OC Eukaryo
OC Ekaryo
OC FRYNCHO
RN [1]
RR TISUE-
RA MEDLINE
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RL23_HALCU
       RRR OCC GREET DAC
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Best Local Similarity
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Best Local (
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P05975;
01-NOV-1988
01-NOV-1988
30-MAY-2000
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Ol-DEC-1992 (Rel. 24, Last sequence update)
15-JUL-1998 (Rel. 36, Last annotation update)
15-JUL-1998 (Rel. 36, Last annotation update)
OVOHEMERYTHRIN (YP14) (FRAGMENT).
Theromyzon tessulatum (Leech).
Eukaryota, Metazoa; Annelida; Clitellata; Hirudinea;
Rhynchobdellida; Glossiphoniidae; Theromyzon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NON_TER
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-!- FUNCTION: MAJOR YOLK PROTEIN. THIS IRON PROTEIN MAY PLAY A
IN THE DETOXIFICATION OF FREE IRON AFTER A BLOOD MEAL.
-!- SIMILARITY: BELONGS TO THE HEMERYTHRIN FAMILY.
PIR; S29264; S29264.
HSSP; P02247; ZMHR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -!- CATALYTIC ACTIVITY: PREFERENTIAL CLEAVAGE WITH BASIC RESIDUES P2 AND P1.
MEROPS; C01.093; -.
Hydrolase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE-93049299; PubMed-1425663;
Baert J.-L., Britel M., Sautiere P.,
"Ovohemerythrin, a major 14-kDa yolk
MEDLINE-84282108; PubMed-6467081;
Matheson A.T., Yaguchi M., Christ
                                                                                                                    Halobacterium cutirubrum
Archaea; Euryarchaeota;
                                                                                                                                                                                        50S RIBOSOMAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INTERPRO; IPRO02063; -
PROSTIE; PS00550; HEMERYTHRINS; PARTIAL.
OXYGEN transport; Metal-binding; Iron; Yolk.
NON_TER

18
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                                                SEQUENCE
                                                                                                 Halobacterium
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                                                                                                                                                                                                                                                                                                                                                                                                                               13 FKVFYE 18
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15 AA;
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                                                                                                                                                                                 (Rel. 09, Created)
(Rel. 09, Last sequence update)
(Rel. 39, Last annotation update)
AL PROTEIN L23P (HL31) (FRAGMENT).
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                                                                                                                                          cutirubrum
                                                                                                                                                                                                                                                                                                               STANDARD;
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1730 MW;
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                                                                                                                       Halobacteriales;
    Christensen
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Pred. No.
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Pred. No.
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                                                                                                                                                                                                                                                                                                               PRT;
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protein distinct
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1.6e+03;
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                                                                                                                       Halobacteriaceae
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    C.F.,
       Hasnain
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Matches 4
  Query Match
Best Local Similarity
Matches 4; Conserv
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01-FEB-1994
01-FEB-1994
15-JUL-1998
                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                           Mau B., Shao Y.; ....., ALLAPACITICK H.A., Goeden M.A., Ros "The complete genome sequence of Escherichia coli K-12."; Science 277:1453-1474(1997).
                                                                                                                 ECOGENE; EG12074; gefL.
Leader peptide.
SEQUENCE 19 AA; 2259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
STRALN=K12 / MG1655;
MEDLINE=97426617; PubMed=9278503;
Blattner F.R., Plunkett G. III, Bloch C.A., Perna N.T., Burland V.
Riley M., Collado-Vides J., Glasner J.D., Rode C.K., Mayhew G.F.,
Gregor J., Davis N.W., Kirkpatrick H.A., Goeden M.A., Rose D.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  certain 50S ribosomal subun Halobacterium cutirubrum."; Can. J. Biochem. Cell Biol.
                                                                                                                                                                                    EMBL; AE000112; AAC73129.1; ALT_TERM PIR; S16473; S16473.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ECOLI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mol. Microbiol. 5:1639-1648(1991).
[2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
MEDLINE-92048481; PubMed-1943701;
Poulsen L.K., Refn A., Wolin S., Andersson P.;
"The gef gene from Escherichia coli is regulated at the level
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GEF LEADER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
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PROSITE; PS00050; RIBOSOMAL_L23; PARTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -!- SIMILARITY: BELONGS TO
PIR; S08559; S08559.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  translation."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18 AA; 2041 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (Rel. 28, Created)
(Rel. 28, Last sequence update)
(Rel. 36, Last annotation update)
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    Conservative
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57.1%;
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                                                                                                                 MW;
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Score 20;
Pred. No.
1; Mismatc
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Pred. No. 1
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DT 01-OCT-1989
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MEDLINE-89338735; PubMed-2503398;
Ikeuchi M., Koike H., Inoue Y.;
Ikeuchi M., Koike H., Inoue Y.;
                                                                                                                     NON_TER
                                                                                                                                           STRAIN-ATCC 10953;
MEDLINE-98361026; PubMed-9695913;
Rogers A.H., Gunadi A., Gully N.J., Zilm P.
"An aminopeptidase nutritionally important
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AMP_FUSNU STANDARD; PRT; 20 AA. P81207; P81207; 15-JUL-1998 (Rel. 36, Created) 15-JUL-1998 (Rel. 36, Last sequence update) 15-DEC-1998 (Rel. 37, Last annotation update) AMINOPEPTIDASE (EC 3.4.11.-) (AP) (FRAGMENT).
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Bacteria; Fusobacteria;
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MOD_RES 1 1 E
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NON_TER 19 19
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Bacteria; Cya
                                                                                                                                                                                                                                                                                   nucleatum."
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(Rel. 12, Last sequence update)
(Rel. 29, Last annotation update)
II REACTION CENTER N PROTEIN (FRAGMENT).
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3; Mismatc
  Score 20; D
Pred. No. 2.
4; Mismatche
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P20835;
01-FEB-1991 (Rel. 17
01-FEB-1991 (Rel. 17
01-FEB-1991 (Rel. 17
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Best Local
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1_ASPNG
PEP1_ASPNG
P55749;
01-NOV-1997
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NON_TER
SEQUENCE
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01-NOV-1997 (Rel. 35, Last sequence update)
01-NOV-1997 (Rel. 35, Last anotation update)
CARBOXYPEPTIDASE I (EC 3.4.16.-) (CPD-I) (FRAGMENT).
Aspergillus niger.
Eukaryota; Fungi; Ascomycota; Eurotiales; Trichocomaceae;
anamorphic Trichocomaceae; Aspergillus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           proteins and peptide synthesis.";
Appl. Environ. Microbiol. 58:2144-2152(1992).
Appl. Environ. Microbiol. 58:2144-2152(1992).
-i- FUNCTION: REMOVES ACIDIC, NEUTRAL AND BASIC AMINO ACIDS AS WIPPLICAL FOR THE C-TERMINAL POSITION. DIGESTS PREFERENTIALLY PROLINE FROM THE C-TERMINAL POSITION OF ESTEDIOE IN PLOSITION OF ESTED AS ARGININE, LYSINE OR PHENYLALANIE IN PL POSITION OF ESTENS AS ARGININE, LYSINE OR PHENYLALANIE IN PL POSITION OF ESTENS AS ARGININE, LYSINE OR PHENYLALANIE IN VICTABLE ABOVE PH 8.
SUBSTRATE. OPTIMAL PH IS 4; ENZYME IS UNSTABLE ABOVE PH 8.
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Dal Degan F., Riba
Bacteriophage T3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE, AND CHARACTERIZATION
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PTM: CONTAINS BOTH N- AND O-LINKED SUGAR CHAINS. THE N-LINKED OLIGOSACCHARIDES ARE UNIQUE STRUCTURES OF MAN(10)GLCNAC(2) AND MAN(11)GLCNAC(2). DEGLICOSYLATION DOES NOT AFFECT THE CATALYTIC ACTIVITY, PH OR THERMAL STABILLTY, OR RESISTANCE TO PROTEOLYSIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATALYZES ALSO PEPTIDE SYNTHESIS.

CATALYTIC ACTIVITY: RELEASE OF A C-TERMINAL AMINO ACID WITH
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PROTEIN.
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Pred. No. 2.5e
2; Mismatches
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2.5e+03;
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P81337;
15-JUL-1998 (Rel.
15-JUL-1998 (Rel.
15-JUL-1998 (Rel.
BUTYRATE KINASE (
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                                                                                                                                                                                                                                                                                         Plengsrud R., Skjeldal L.,
"Two-dimensional gel electrophoresis separation and N-terminal
sequence analysis of proteins from Clostridium pasteurianum W5.";
Electrophoresis 19:802-806(1998).
-i- FUNCTION: CATALYSES THE CONVERSION OF BUTYRYL-COA THROUGH BUTYRYL
-i- FUNCTION: CATALYSES THE CONVERSION OF BUTYRYL-COA THROUGH BUTYRYL
-i- FUNCTION: CATALYSES THE CONVERSION OF BUTYRYL-COA THROUGH BUTYRYL
-i- FUNCTION: ATP + 2-BUTANOATE = ADP + BUTANOYL PHOSPHATE.
-i- PATHWAY: INVOLVED IN THE ACIDOGENIC PHASE OF FERMENTATION.
-i- SIMILARITY: BELONGS TO THE ACETOKINASE FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; x17255; CAA35126.1; -. EMBL; x05031; CAA28701.1; -. PIR; S09540; S09540.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Clostridium pasteurianum
Bacteria; Firmicutes; Bac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hypothetical protein. SEQUENCE 25 AA; 2821 MW;
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"Sequence of a conditionally essential region of bacteriophage T3.
including the primary origin of DNA replication.";
J. Mol. Biol. 193:479-495(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN-LURIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Viruses; dsDNA viruses, no RNA stage; Tailed phages; Podoviridae; 77-like phages.
                                                                                                                                                                                                              PROSITE; PS01075; ACETATE_KINASE_1; PROSITE; PS01076; ACETATE_KINASE_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN-W5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-87226207; PubMed-3586029;
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                                                                                                                                  SEQUENCE
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                                                                                                                                                                 NON_TER
                                                                                                                                                                                       Transferase;
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Similarity
3; Conserve
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                                                                                                                                                                                                                                                                        IPR000890;
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(Rel. 36, Last sequence update)
(Rel. 36, Last annotation update)
NASE (EC 2.7.2.7) (BK) (CP 38) (FRAGMENT).
  Conservative
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                                                                                                                                                                                          Kinase.
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                           18.6%;
50.0%;
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27.3%;
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  2:
                                                                                                                                  055D40505727232B CRC64;
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                           Score 19;
Pred. No.
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RESULT
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P80704;

P80704;

T 01-OCT-1996 (Rel. 34, Created)

T 01-OCT-1996 (Rel. 37, Last sequence update)

DT 15-DEC-1998 (Rel. 37, Last annotation update)

DE ALDEHYDE DEHYDROGENASE, BETA CHAIN (EC 1.2.99.3) (ALI Comamonas testosteroni).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tidentification of evolutionary conserved regulatory sequences in the
Ty untranscribed region of the neural-specific ubiquitin C-terminal
Thydrolase (PGP9.5) gene.";
L. J. Neurochem. 66:35-46(1996).
C. -!- FUNCTION: UBIQUITIN-PROTEIN HYDROLASE IS INVOLVED BOTH IN THE
C. -!- FUNCTION: UBIQUITIN-PRECURSORS AND OF UBIQUINATED PROTEINS.
C. THIS ENZYME IS A THIOL PROTEASE THAT RECOGNIZE AND HYDROLYZE
C. A PEPTIDE BOND AT THE C-TERMINAL GLYCINE OF UBIQUITIN.
C. -!- CATALYTIC ACTIVITY: UBIQUITIN C-TERMINAL THIOLESTER + H(2)O =
C. UBIQUITIN + A THIOL.
C. -!- SUBCELLULAR LOCATION: CYTOPLASMIC.
C. -!- SUBCELLULAR LOCATION: CYTOPLASMIC.
C. -SUBLILARITY: BELONGS TO PEPTIDASE FAMILY C12; ALSO KNOWN AS
FAMILY 1 OF UBIQUITIN CARBOXYL-TERMINAL HYDROLASES.
                                                                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 4
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01-OCT-1996 (Rel. 34, Last sequence update)
01-OCT-1997 (Rel. 35, Last annotation update)
01-INOV-1997 (Rel. 35, Last annotation update)
UBIQUITIN CARBOXYL-TERMINAL HYDROLASE ISOZYME L1 (EC 3.1.2.15) (UCH-L1) (UBIQUITIN THIOLESTERASE L1) (PGP 9.5) (FRAGMENT).
                                                                                                                                                                    COMTE
                                                                                                                                                                                                                                                                                                                                                                                  Ubiquitin conjugation; Hydrolase; NON_TER 15 15 SEQUENCE 15 AA; 1816 MW; 1B7A:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a continuous the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE-96102916; PubMed-8522974; Mann D.A., Trowern A.R., Lavender
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Monodelphis domestica (Short-tailed grey opossum).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Metatheria; Didelphimorphia; Didelphidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS00140; UCH_1; PARTIAL.
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26
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Pred.
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2.3e+03;
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                                    Comamonadaceae; Comamonas
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                                                                  (ALDH) (FRAGMENT).
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Monodelphis.
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SEQUENCE.

STRAIN-ATCC 15667;

STRAIN-ATCC 15667;

A LUYKX D.M.A.M., Kim S.W., de Vries S., Dui AL Submitted (JUL-1996) to the SWISS-PROT dat CC -1- CATALYTIC ACTIVITY: AN ALDEHYDE + ACC CC -ECDEACTOR: MOLYBDENUM.

CC -1- COFACTOR: MOLYBDENUM.

CC -1- SUBUNIT: HETEROTRIMER COMPOSED OF AN CHAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 22

ID NS2_MYCTU STANDARD; PRT; 19 AJ

ID NS2_MYCTU STANDARD; PRT; 19 AJ

AC P81136;
DT 15-JUL-1999 (Rel. 38, Created)
DT 15-JUL-1999 (Rel. 38, Last sequence update)
DT 15-JUL-1999 (Rel. 38, Last annotation update)
DE 30 KDA NON-SECRETORY PROTEIN 2 (FRAGMENT).
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Matches 3; Conser
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Matches 5; Conserv
                                                                                                        CH60_ACICA STAN
P81874;
30-MAY-2000 (Rel. 3
30-MAY-2000 (Rel. 3
30-MAY-2000 (Rel. 3
60 KDA CHAPERONIN (
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SEQUENCE
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                                                                         MOPA OR GROEL.
Acinetobacter calcoaceticus.
Bacteria; Proteobacteria; ga
                                                                                                                                                                                                                                                                                                                   AND H.INFLUENZAE
NON_TER 19 1
SEQUENCE 19 AA; 22
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Submitted (DEC-1997) to the SWISS-PROT data
-i- SIMILARITY: STRONG, TO THE N-TERMINALS
 MEDLINE-99274045; PubMed-10344248; Benndorf D., Loffhagen N., Babel W "Induction of heat shock proteins i
                                   SEQUENCE.
STRAIN-69-V;
                                                                                                                                                                                                                                                                                                                                                                                                                  Mycobacterium tuberculosis.
Bacteria; Firmicutes; Actinobacteria;
Actinomycetales; Corynebacterineae; My
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                                                                 Acinetobacter.
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    39, Created)
    39, Last sequence update)
    39, Last annotation updat
    (PROTEIN CPN60) (GROEL PR

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agen N., Babel W
shock proteins
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42.9%;
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Pred. No. 2.9e
1; Mismatches
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Pred. No.
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(GROEL PROTEIN) (FRAGMENT).
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Mycobacteriaceae; M
  response
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OT data bank.
ACCEPTOR + H
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Best Local :
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CLPP_HORVU
P4883;
01-FEB-1996
01-FEB-1996
01-NOV-1997
PROBABLE CLP
                  INTERPRO; IPRO0190/; -
INTERPRO; IPRO0381; CLP_PROTEASE_SER; PART:
PROSITE; PS00382; CLP_PROTEASE_HIS; PART:
PROSITE; PS00382; CLP_PROTEASE; Chloroplast.
                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a between the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and fentitles requires a license agreement (See http://www.isb-sib.or.send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                 plastids.";
Plant Mol. Biol. 30:109-123(1996).
-!- CATALYTIC ACTIVITY: HYDROTYSTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Acinetobacter calcoaceticus,";
Electrophoresis 20:781-789(1999).
FUNCTION: PREVENTS MISFOLDING AND PROMOTES THE REFOLDING PROPER ASSEMBLY OF UNFOLDED POLYPEPTIDES GENERATED UNDER CONDITIONS (BY SIMILARITY).
-1- SUBUNIT: OLIGOMER OF 14 SUBUNITS COMPOSED OF TWO STACKED 7 SUBUNITS (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                   STRAIN=CV. HAISA;
MEDLINE=96197402; PubMed=8616228;
Huebbschmann T., Hess W., Boerner T.;
"Impaired splicing of the rps12 transcript in ribosome-deficient
                                                                                                                                                                                                                                                                                                                                                                                                                                                Chloroplast
Eukaryota; \
                                                                              MENDEL;
                                                                                         EMBL; X89562; CAA61738.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;
Magnoliophyta; Liliopsida; Poales; Poaceae; Hordeum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chaperone;
  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hordeum vulgare
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nes 4; Conservative
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                                                                                                                                                                                                                                 CATALYTIC ACTIVITY: HYDROLYSIS OF PROTEINS TO SMALL PEPTIDES IN THE PRESENCE OF ATP AND MAGNESIUM. ALPHA-CASEIN IS THE USUAL TE SUBSTRATE. IN THE ABSENCE OF ATP, ONLY OLIGOPEPTIDES SHORTER THE FIVE RESIDUES ARE CLEAVED (SUCH AS SUCCINYL-LEU-TYR-|-NHMEC; AND LEU-TYR-LEU-|-TYR-TRP, IN WHICH THE CLEAVAGE OF TYR-TRP- BOND ALSO OCCURS).

SIMILARITY: BELONGS TO PEPTIDASE FAMILY S14; ALSO KNOWN AS CLPE
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O; IPR001907; -.
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(Rel. 33, Last sequence update)
(Rel. 35, Last annotation update)
(Rel. 35, Last annotation update)
AA;
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 715EB01FE3E073CE CRC64;
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Search completed: February Job time: 498 sec

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23356;
01-NOV-1991 (Rel. 20, Created)
01-NOV-1991 (Rel. 20, Last sequence update)
01-OCT-1996 (Rel. 34, Last annotation update)
UBIQUITIN CARBOXYL-TERMINAL HYDROLASE ISOZYME L1 (EC
L1) (UBIQUITIN THIOLESTERASE L1) (NEURON CYTOPLASMIC
                                                                                                                                                                              -!- SUBCELLULAR LOCATION: CYTOPLASMIC.
-!- TISSUE SPECIFICITY: NEURONS AND CELLS OF
-!- NEUROENDOCKINE SYSTEM AND THEIR TUMORS.
-!- SIMILARITY: BELONGS TO PEPTIDASE FAMILY
PAMILY 1 OF UBIQUITIN CARBOXYL-TERMINAL
PIR: S17561: S17561.
                                                                                                        Bos taurus (Bovine).
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                             FEBS Lett.
                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
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                                                                                                                                                                                                                                                                FUNCTION: UBIQUITIN-PROTEIN HYDROLASE IS INVOLVED BOTH IN THE PROCESSING OF UBIQUITIN PRECURSORS AND OF UBIQUINATED PROTEINS THIS ENZYME IS A THIOL PROTEASE THAT RECOGNIZE AND HYDROLYZE A PEPTIDE BOND AT THE C-TERMINAL GLYCINE OF UBIQUITIN.

CATALYTIC ACTIVITY: UBIQUITIN C-TERMINAL THIOLESTER + H(2)O -
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MQLKPMEIDPEMLNK 15
                       MMIARFKMFPEVKEK 20
                                              similarity 26.
4; Conservative
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75.0%;
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3.7e+03;
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2: sp_bacteria
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Q9rgr1 bordetella
Q3556 pythium oli
Q95573 reovirus sp.
Q00340 veccinia vi
Q9r4n5 bacillus an
Q9r4w0 campylobact
Q05279 chlorante-a
Q9s551 actinobacil
Q62966 rattus norv
Q9uwm1 methanospir
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Best Local S
Matches 6
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Best Local S
Matches 7
                                                                                                                                               Q9QW14 PRELIMINARY;
Q9QW14;
Q1-MAY-2000 (TrEMBLrel. 13, Cr
01-MAY-2000 (TrEMBLrel. 13, La
01-JUN-2000 (TrEMBLrel. 14, La
PROTEIN TYROSINE KINASE JAK1 (
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Bos taurus (Bovine).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea,

Bovidae; Bovinae; Bos.

NCBL_TaxID-9913;
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Q9JIA2;
01-OCT-2000 (TrEMBLrel. 15, Last sequer
01-OCT-2000 (TrEMBLrel. 15, Last annote
NOREPINEPHRINE TRANSPORTER (FRAGMENT).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (MAR-2000) to the EMBL; AF246668; AAF78041.1; NON_TER 19 19
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                                                          Mammalia; Eutheria;
NCBI_TaxID=10095;
                                                                                                         Eukaryota; Metazoa;
                                                                                                                             Mus sp.
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  MEDLINE-93293238;
                      SEQUENCE FROM N.A.
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  PubMed-8514334;
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                                                                                                         Chordata;
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Analysis of the
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4; Mismatches
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1 (FRAGMENT).
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                                                                                Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
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Matches 4
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Q9QXN6;
01-MAY-2000 (TrEMBLrel. 13, 0
01-MAY-2000 (TrEMBLrel. 13, 1
01-MAY-2000 (TrEMBLrel. 13, 1
INTERLEUKIN-2 (FRAGMENT).
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Q9RGR1;
Q1-MAY-2000 (TEMBLICAL 13,
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01-MAY-2000 (TIEMBLICAL 13,
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Mus musculus (Mouse).
Mus musculus (Motazoa; Chordata; ...
'--rvota; Metazoa; Rodentia;
filamentous hemagglutinin ar
Submitted (DEC-1998) to the
EMBL; AF111798; AAF21948,1;
                                     Relman D.A.;
"Molecular characterization of the Bordetella bronchiseptica "Molecular characterization and its secretion machinery.";
filamentous hemagglutinin and its secretion machinery.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (OCT-1999) to the EMBL/GenBank/DDBJ EMBL; AF195955; AAF22748.1; -. NON_TER 11 11 11 SEQUENCE 11 AA; 1233 MW; AE23EC9CBDD736D6
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                                                                                                                                                                                                                                                                                                                                   Bacteria; Proteobacteria;
                                                                                                                                                                                                                                                                                                                                                                                                     FHAB
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                                                                                                                                                                                      STRAIN-8234;
                                                                                                                                                                                                                                                                                                             Bordetella.
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                                                                                                                                                      Jacob-Dubuisson F.,
                                                                                                                                                                                                                  EQUENCE FROM N.A.
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| AYSMQLA
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E 22 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                 (FRAGMENT)
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                                                                                                                                                      Kehoe
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57.1%;
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2; Mismatches
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annotation update)
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.A.;
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1.1e+03;
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                                                                                                                                                                                                                                                                                                                                         Alcaligenaceae;
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; Murinae; Mus.
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Q35556;
Q35556;
Q1 NOV-1996 (TrEMBLrel. 01, Cre
01 NOV-1996 (TrEMBLrel. 01, Las
01 NOV-1996 (TrEMBLrel. 01, Las
101 NOV-1996
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Q9JJU5;
Q1-OCT-2000
Q1-OCT-2000
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SEQUENCE
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B-RAF.
Mus musculus (Mouse).
Mus musculus (Mouse).
Metazoa; Chordata; Metazoa; Rodentia;
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Curr. Genet. 27:0-0(0).
EMBL; U28355; AAA70034.1; -.
Hypothetical protein; Mitochondrion.
SEQUENCE 21 AA; 2491 MW; 883B7AB
                                                                                                                                                                                                                                                                                              specific expression.";
Submitted (MAR-2000) to the
EMBL: AJ276308; CAB81556.1;
                                                                                                                                                                                                                                                                                                                                                                                      Barnier J.V., Papin C., Eychene A., Lecoq O., Calothy G.; "The mouse B-raf gene encodes multiple protein isoforms with tissue-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B-RAF PROTEIN
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NCBI_TaxID=41045;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                  Local Similarity
nes 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
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3; Conser
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                                                                                                                                                                                                  14 AA;
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O (TrEMBLrel. 15,
O (TrEMBLrel. 15,
EIN (FRAGMENT).
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                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
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AA;
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2135
                                                                    22.5%;
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01, Last sequence update)
01, Last annotation update)
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                                                                                                                                                                                                                                                                                                                                EMBL/GenBank/DDBJ databases
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Last annotation updat
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                              Score 23; DB 11;
Pred. No. 2.2e+03;
1; Mismatches (
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Pred. No. 2e+C
6; Mismatches
                                                                                                                                                                                              D1E0505C44927F02 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Craniata; Vertebrata; Sciurognathi; Muridae;
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2.3e+03;
3;
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2e+03;
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                                                                                                  Length 14;
                                  Indels
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; Murinae; Mus
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Q1-NOV-1996 (TrEMBLrel. 01, Created)
O1-NOV-1996 (TREMBLrel. 01, Last sequence update)
O1-NOV-1998 (TREMBLrel. 08, Last annotation updat
REOVIRUS SEROTYPE 3 L1 (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q00340 PRELIMINARY; PRT; 17 AA.
Q00340;
Q1-NOV-1996 (TrEMBLrel. 01, Created)
Q1-MAY-2000 (TrEMBLrel. 13, Last sequence update)
Q1-MAY-2000 (TrEMBLrel. 13, Last annotation updat)
HYPOTHETICAL PROTEIN IN Q2L 3'REGION (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; J02
NON_TER
SEQUENCE
                                                                                                                                                     "Localization and determination of the nucleotide sequence virus genes coding for the proteins 36K and 12K."; Dokl. Biochem. 24:780-787(1990). EMBL; X61166; CAB57393.1; ... NON_TER 17 17 17 17 AA; 2017 MW; 848F24A871E90FBC CRC64;
                                                                                                                                                                                                                                                                                                                                                    Ryazankina O.I., Shchelkunov S.N., Muravlev Mikryukov N.N., Gutorov V.V., Nikulin A.E., Malygin E.G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vaccinia virus (strain L-IVP)
Viruses; dsDNA viruses, no RN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-L-IVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=31531;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Orthopoxvirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (strain Dearing).";
Virology 121:307-319(1982).
EMBL; J02313; AAA47269.1; -.
NON_TER 17 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
MEDLINE-83017876; PubMed-6927854;
Antczak J.B., Chmelo R., Pickup D.J., Joklik
"Sequence at both termini of the 10 genes of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Sequences of ribosome binding reovirus mRNA.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Reovirus sp.
Viruses; dsRNA viruses; Reoviridae;
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Score 23; DB 12;
Pred. No. 2.7e+03;
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09R4W0;
01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
64 KDA HEAT SHOCK- AND ALKALINE PH-INDUCED PROTEIN (FRAGMENT).
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O1-MAY-2000 (TrEMBLrel. 13, Created)

O1-MAY-2000 (TrEMBLrel. 13, Last sequence update)

O1-MAY-2000 (TrEMBLrel. 13, Last annotation update)

EXTRACTABLE ANTICEN 1 (FRAGMENT).
                                                                                                                                                                                            Wu Y.L., Lee L.H., Rollins D.M., Ching W.M.; "Heat shock- and alkaline pH-induced proteins of Campylobacter characterization and immunological properties."; Infect. Immun. 62:4256-4250(1994).
SEQUENCE 20 AA; 2339 MW; ODDE08352969DEA7 CRC64;
005279 PRELIMINARY
005279;
01-JUL-1997 (TrEMBLrel.
                                                                                                                                                                                                                                                                                         Bacteria; Proteobacteria; epsilon subdivision; Campylobacter group; Campylobacter.
Campylobacter.
NCBI_TaxID-197;
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Bacteria; Firmicutes; Bacillus/Clostridium
Bacillus/Staphylococcus group; Bacillus.
NCBI_TaxID-1392;
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Schaller A., Kuhn R., Kuhnert P., Nicol
MacInnes J.I., Segers R.P.A.M., Frey J
"Characterization of apxIVA, a new RTX
pleuropneumoniae.";
pleuropneumoniae.";
Microbiology 145:2105-2116(1999).
EMBL; AF021919; AAD0159.1; -.
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                                                                               Q62966 PRELIMINARY; PRT; 12 AM. Q62966; Q62966; Q1-NOV-1996 (TrEMBLrel. 01, Created) 01-NOV-1996 (TrEMBLrel. 08, Last sequence update) 01-NOV-1998 (TREMBLREL. 08, Last annotation update) INTERSTITIAL COLLAGENASE (FRAGMENT). Rattus norveritus (Rat).
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O9S551:
01-MAY-2000 (TERMBLrel. 13, Created)
01-MAY-2000 (TERMBLrel. 13, Last sequence update)
01-MAY-2000 (TERMBLrel. 13, Last annotation update)
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Chlorante-Aster yellows phytoplasma.
Bacteria; Firmicutes; Bacillus/Clostridium group;
                                     Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia;
   NCBI_TaxID=10116;
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STRAIN-4074;
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NCBI_TaxID=715;
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EMBL/GenBank/DDBJ databases.
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                                         Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Rat
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Q9UWM1;
01-MAY-2000
01-MAY-2000
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SEQUENCE FROM N.A.
STRAIN-SPRAGUE-DAWLEY;
Pubm
MEDLINE=95093530; PubMed=8000479;
Hardinan G., Byrnes L., Peden J., Wolff J., Gan
"Cloning and sequencing of the Atlantic salmon
cytochrome c oxidase subunit III gene (coxIII)
expression during parr-smolt transformation.";
                                                                                               Eukaryota; Metazoq; Chordata; Craniata; Vertebr; Actinopterygii; Neopterygii; Teleostei; Euteleo: Protacanthopterygii; Salmoniformes; Salmonidae; NCBI_TaxID=8030;
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
BENZOYL-COA LIGASE (FRAGMENT).
Methanospirillum hungatei.
Archaea; Euryarchaeota; Methanomicrobiales; Methanomicrobiaceae;
Methanospirillum.
                                                              SEQUENCE FROM N.A.
TISSUE-LIVER;
                                                                                                                                                            Salmo salar (Atlantic salmon)
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Auburger G., Winter J.;
Appl. Microbiol. Biotechnol.
SEQUENCE 15 AA; 1880 MW;
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Rajakumar R.A., Quinn C.O.
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4; Conservative
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Pred. No. 2.7e
4; Mismatches
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D2972EF3E690AC5C CRC64;
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h an AP-1-binding site.";
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2.7e+03;
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II) and analysis
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Q9UMJ9;
01-MAY-2000
01-MAY-2000
01-MAY-2000
                                                         Q9RLP2 PRELIMINARY; PRT; 20 AA.
09RLP2;
01-MAY-2000 (TIEMBLIEL. 13, Created)
01-MAY-2000 (TIEMBLIEL. 13, Last sequence update)
01-MAY-2000 (TIEMBLIEL. 13, Last annotation update)
PUTATIVE CYSTEIMEYL T-RNA SYNTHETASE (FRAGMENT).
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GALT.
Homo sapiens (Human).
Homo sapiens (Human).
Thereas, Chordata,
Thereas, Primates;
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01-MAY-2000 (TremBLrel 13, 1
01-MAY-2000 (TremBLrel 13, 1
GALACTOSE-1-PHOSPHATE URIDYL
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EMBL; L04502; AAA62410.1; -.
                        Neisseria gonorrhoeae.
Bacteria; Proteobacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "A molecular approach to
Eur. J. Pediatr. Suppl. 2
EMBL: L46718; AAB59602.1;
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  NCBI_TaxID=485;
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15 AA;
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1832
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Matches 5
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Matches 4; Conser
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Q9UK71;
01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
LITHIUM-SENSITIVE MYO-INOSITOL MONOPHOSPHATASE A1 (EC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       *Stein D.C., Gunn J.S.;

*Use of a non-selective tansformation technique to construct a multiple restriction-modification deficient mutant of Neisseria gonorrhoeae. *;

gonorrhoeae. *;

submitted (SEP-1999) to the EMBL/GenBank/DDBJ databases.

EMBL; U42459: AAD56589.1; -.

NON_TER 20

20

SEQUENCE 20 AA; 2245 MW; 4C893C704879FFD3 CRC64;
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SEQUENCE FROM
STRAIN-WR302;
                                                                                                                                              029341 PRELIMINARY; PRT;
029341;
01-NOV-1996 (TrEMBLrel 01, Created)
01-NOV-1996 (TrEMBLrel 01, Last seq
01-MAY-2000 (TrEMBLrel 13, Last ann
NGF-INDUCIBLE PROTEIN TIS21 (FRAGMEN
                                                                        Sus scrofa (Pig).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (OCT-1999) to the EMBL; AF178754; AAD52997.1; HSSP; P29218; 1IMB.
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Parthasarathy R.;

Parthasarathy Companization and promoter analysis

Molecular cloning, genomic organization and promoter analysis

human brain lithium-sensitive myo-inositol monophosphatase Al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
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isoenzyme.",
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  SEQUENCE FROM N.A.
                                                NCBI_TaxID=9823;
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0 AA; 2257
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57.1%;
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(FRAGMENT).
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 22; DB 4;
Pred. No. 4.7e+03
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Sus.
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Best Local S
Matches 3
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C Q9TRC0;
C Q9TRC0;
T 01-MAY-2000 (TrEMBLrel. 13, Created)
T 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
T 01-CCT-2000 (TrEMBLrel. 15, Last annotation update)
E ENTEROTOXIN-BINDING GLYCOPROTEIN PP16K (FRAGMENT).
S Bos taurus (Bovine).
C Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleos C Eukaryota; Metazoa; Chordata; Craniata; Ruminantia; Pecora; Bovidae; Bovinae; Bos.

C Bovidae; Bovinae; Bos.
N NCB_TaxID-9913;
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Best Local S
Matches 4
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MEDLINE-94259890; PubMed-8201051;

MEDLINE-94259890; PubMed-8201051;

Shida K., Takamizawa K., Nagaoka M.,

"Enterotoxin-binding glycoproteins in
heated bowine milk.";
J. Dairy Sci. 77:930-939(1994).

HSSP; P00711; HFZ.

SEQUENCE 20 AA; 2321 MW; C738FD1.
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Mamm. Genome 7:509-517(1996).
EMBL; F14751; CAA23227.1; -.
NON_TER 1
NON_TER 20 20
SEQUENCE 20 AA; 2058 MW; 1
SEQUENCE FROM N.A.

Veltri C., Pilla F., Lagonigr
"A new allele of goat alpha s
submitted (DEC-1999) to the E
EMBL; AJ242728; CAB44433.2; -
NON_TER 1
NON_TER 21
NON_TER 21
NON_TER 21
NON_TER 21
21
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Q9XSL5;
01-NOV-1999 (TIEMBLIEL 12, C
01-MAY-2000 (TIEMBLIEL 13, L
01-MAY-2000 (TIEMBLIEL 13, L
ALPHA S2-CASEIN (FRAGMENT).
                                                                                                                                                                                         Capra hircus (Goat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
Bovidae; Caprinae; Capra.
NCBI_TaxID=9925;
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EMBL/GenBank/DDBJ
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Last sequence update)
Last annotation updat
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Pred. No. 4.7e
1; Mismatches
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No. 4.7e+03;
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SEQUENCE

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No. of Lot

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Matches 5; Conserv
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Best Local Similarity 33.3
Matches 4; Conservative
                                SEQUENCE FROM N.A.
STRAIN-ATCC 10987;
MEDLINE-99231848; PubMed-10217496;
Okstad O.A., Hegna I., Lindbaeck T., Ris
"Genome organization is not conserved be
Bacillus subtilis.";
Microbiology 145:621-631(1999).
EMBL: AJ010135; CAB40592.1; -.
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Q9ZEQ5;
Q1-MAY-1999
Q1-MAY-1999
Q1-MAY-1999
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01-NOV-1999
01-NOV-1999
01-NOV-1999
TRANSLATION
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NON_TER
SEQUENCE
                                                                                                                                       Bacillus cereus.
Bacteria; Firmicutes; Bacillus/Clostridium group;
Bactllus/Staphylococcus group; Bacillus.
NCBI_TaxID-1396;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (NOV-1998) to the EMBL/GenBank/DDBJ databases. EMBL; AJ012727; CAA10150.1; -. NON_TER 1 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Wedege E., Caugant D.A., Musacchio A., Saunders N.B., Zollinger W.D.; "Specificities of reference monoclonal antibodies and human postvaccination sera with meningococcal Pl.19,15 outer membrane
           Elongation factor.
                                                                                                                                                                                                                                                              Q9XBK2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
STRAIN-19/92;
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Bacteria; Proteobacteria; beta subdivision; Neisseriaceae; Neisseria.
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                                                                                                                                                                                                                                                                                                                                                                                                                             24 AA;
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(TrembLrel. 12, Last sequence update)
(TrembLrel. 12, Last annotation update)
ELONGATION FACTOR TS (EF-TS) (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
24
2671 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21.6%;
                                                                                                                                                                                                                                                                                                                                                                                21.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Created)
Last sequence update)
Last annotation update)
                                                                                                                                •
                                                                                                                                                                                                                                                                                                                                                                   Score 22; DB 2;
Pred. No. 5.6e+03;
1; Mismatches 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>ن</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 22; DB 6;
Pred. No. 4.9e+03;
5; Mismatches 3
F1AB99BFEB5DDABD CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                              PRT;
                                                                   Rishovd A.L., Kolsto A.B.;
d between Bacillus cereus a
                                                                                                                                                                                                                                                             24 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3; Indels
                                                                                                                                                                                                                                                                                                                                                                                          Length 24;
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                                                                and
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Query Match
21.6%; Score 22; DB 2; Length 24;
Best Local Similarity 44.4%; Pred. No. 5.6e+03;
Matches 4; Conservative 3; Mismatches 2; Indels 0; Gaps

Qy 12 KMFPEVKEK 20
1 | |::||
Db 6 QMVKELREK 14
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0

Search completed: February Job time: 911 sec

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2001, 10:55:22

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OM protein - protein search, using sw model
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A_Geneseq_36:*
1: /SIDS1/gcgd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          268485 seqs, 34193795 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-981-824-2
102
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                                                                                                                                                           // SIDS1/gcgdata/geneseq/geneseqp/AA1988.DAT:*

// SIDS1/gcgdata/geneseq/geneseqp/AA1989.DAT:*

// SIDS1/gcgdata/geneseq/geneseqp/AA1990.DAT:*

// SIDS1/gcgdata/geneseq/geneseqp/AA1991.DAT:*

// SIDS1/gcgdata/geneseq/geneseqp/AA1991.DAT:*

// SIDS1/gcgdata/geneseq/geneseqp/AA1991.DAT:*

// SIDS1/gcgdata/geneseq/geneseqp/AA1994.DAT:*

// SIDS1/gcgdata/geneseq/geneseqp/AA1995.DAT:*

// SIDS1/gcgdata/geneseq/geneseqp/AA1997.DAT:*

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// SIDS1/gcgdata/geneseq/geneseqp/AA1999.DAT:*

// SIDS1/gcgdata/geneseq/geneseqp/AA1999.DAT:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SNMYAMMIARFKMFPEVKEK 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /SIDS1/gcgdata/geneseq/geneseqp/AA1980.DAT:*
/SIDS1/gcgdata/geneseq/geneseqp/AA1981.DAT:*
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9.913 Million cell updates/sec
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SUMMARIES

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	37	53	66	74	74	74	78	98	98	98	102	102	Score	
	36.3	52.0	64.7	72.5	72.5	72.5	76.5	96.1	96.1	96.1	100.0	100.0	Match	Operv
	9	24	13	23	14	14	20	20	20	20	20	20	Match Length	
٠.	20	13	18	13	18	16	18	21	21	16	18	18	B B	
	Y30061	R29626	W35531	R29627	W18861	R76653	W10300	Y59577	Y59541	R72277	W01794	W18843	Đ	
4.	Peptide analogue o	GAD peptide. Synt	Ф	GAD peptide. Synt	65 kD Glutamic aci	Peptide derived fr	Mammalian GAD 65 p	GAD65 fragment, pe	GAD65 fragment, pe	Glutamic acid deca	Human 65 kD glutam	65 kD Glutamic aci	Description	

45	44	43	42	41	40	39	38	37	36	35	34	သ	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13
27	27	27	27	27	27	27	27	27	27	27	28	28	28	28.5	29	29	29	29	29	30	30	30	30	30	31	31	31	31	31	31	32	32
26.5	•	٠	•	26.5	•	•	•	•	٠	•	•		•		28.4	28.4	28.4	28.4	28.4	29.4	29.4	29.4	29.4	•	30.4	30.4	•	٠	•	•	31.4	31.4
14	14	14	14	13	13	11	11	11	11	9	19	19	10	15	19	19	19	16	14	25	25	22	15	14	20	20	20	20	20	11	19	15
18	18	18	18	20	10	19	18	17	16	20	17	11	7	20	17	17	17	ဖ	18	19	19	11	17	14	21	21	21	16	16	18	13	21
W40980	-	W40978	W40975	W93458	P90569	W60689	W12233	R99509	R82084	Y46838	R96939	Y07348	P60768	Y30477	R96941	R96940	R96938	P82903	097	W63841	W63838	R06363	R96007	R43871	J	57	957	R72278	R72276	W10301	R27147	у99016
	ic peptide	10	cic peptide	ic peption	Peptide to increas		luenza	T-cell epitope use	Infuenza hemagglut	Immunogenic peptid	Loop swap II mutei	meta	Sequence of peptid	Mutant sequence of	tein of	ap III	Loop swap I mutein		Cryptic peptide of	3		3	ч	OmpA2-R-7 signal p	8	ָיי	O1			Mammalian GAD 65 p	sulin exp	HLA class II bindi

ALIGNMENTS

RESULT W18843

W18843 standard; peptide; 20 AA.

W18843;

05-JAN-1998 (first entry)

65 kD Glutamic acid decarboxylase peptide fragment II.

GAD; 65 kD; human; glutamic acid decarboxylase; autoreactive; diagnosis; insulin-dependent diabetes mellitus; IDDM; cell-mediated disease; predisposition; autoimmune; tumour; rheumatoid arthritis; multiple sclerosis.

DE19526561-A1. Synthetic.

20-JUL-1995; 95DE-1026561

23-JAN-1997.

20-JUL-1995; 95DE-1026561.

(BOEF) BOEHRINGER MANNHEIM GMBH.

Donie F, Endl J, Ganz M, Pozzilli P, Stahl P; Jung G, Kientsch-engel

WPI; 1997-088254/09.

Skin test for diagnosis of cell-mediated diseases, esp. diabetes involving intradermal admin. of auto:reactive substances $% \left(1\right) =\left\{ 1\right\} =$

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RESULT WO 1794 WO 1794
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                                                decarboxylase (GAD); which can be used to diagnose, or diagnose a predisposition to, a tumour or immunological disease, preferably an autoimmune disease, especially diabetes. It can also be used as a reagent to determine specific T cell subpopulations, in medicaments to treat or prevent immunological diseases, prefereably autoimmune diseases, especially diabetes, to produce antigens, especially minunogens or tolerogens and to isolate specific T cell immunogens or tolerogens and to isolate specific T cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI;
     reinjection, optionally after
                                  subpopulations,
                                                                                                                                                                                                                                                   The present peptide is a framgent of the human 65 kD
                                                                                                                                                                                                                                                                                                          Claim 1;
                                                                                                                                                                                                                                                                                                                                                                diabetes,
                                                                                                                                                                                                                                                                                                                                                                                          Glutamine
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Albert W,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   reinjection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; glutamine decarboxylase; GAD; diagnosis; predisposition; tumour; immunological; disease; autoimmune; diabetes; reagent; determination; T cell; subpopulation; medicament; treatment; prevention; production; antigen; immunogen; tolerogen; isolation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human 65 kD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (BOEF ) BOEHRINGER MANNHEIM GMBH.
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                                                                                                                                                                                                                                                                                                    Page 12; 15pp; German.
                                                                                                                                                                                                                                                                                                                                                                   etc
                                                                                                                                                                                                                                                                                                                                                                                    decarboxylase peptide(s)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Van Endert P;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Boitard C,
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                                  which can
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Pred. No. 4e-12;
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Matches 20
                                                                                                        Query Match
Best Local Similarity
Matches 19; Conserv
                                                                                                                                                                         Q86481 and Q86482 encode R71733 and R79105, rat and human glutamic acid decarboxylase (GAD65) respectively, from which the GAD65 fragments described in R72261-R72298 were derived. These fragments can be used to detect autoantibodies against GAD, e.g. to diagnose and treat GAD-related autoimmune disorders, such as insulin dependant diabetes mellitus or stiff man disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                    Y59541 standard;
                                                                                                                                                                                                                                                              New polypeptide fragments of glutamic acid decarboxylase - for diagnosis and treatment of auto:immune disease, esp. insulin dependent diabetes, also related nucleic acid, vectors, antibodies, hybridoma(s) etc.
                                                                                                                                                                                                                                                                                                                                   Clare-Salzler MJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Glutamic acid decarboxylase; GAD65; auotimmune disorders;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Glutamic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R72277;
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                                                                                                                                                       Sequence
                                                                                                                                                                                                                                              Claim 1;
                                                                                                                                                                                                                                                                                                               WPI; 1995-131360/17.
                                                                                                                                                                                                                                                                                                                                                                        17-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    insulin-dependant diabetes mellitus; stiff man disease
                                                                                                                                                                                                                                                                                                                                                                                           24-AUG-1994;
                                                                                                                                                                                                                                                                                                                                                                                                              23-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                 WO9507992-A
                                                                                                                                                                                                                                                                                                                                                     (REGC ) UNIV CALIFORNIA.
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                                                                             NMYAMMIARFKMFPEVKEK 20
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                                                                    nmyammiarfkmfpevkek 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                             Page 76; 100pp; English
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                                                                                                         Conservative
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                                                                                                                                                                                                                                                                                                                                                                         9308-0123859
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                   peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Peptide;
                                                                                                                                                                                                                                                                                                                                   Erlander MG,
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                                                                                                                   96.1%;
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                                                                                                                    Score 98;
Pred. No.
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Pred. No.
                                                                                                         Mismatches
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                                                                                                                    2 DB
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RESULT
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Best Local S
Matches 19
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21-SEP-1990;
18-JUN-1991;
                                                                                                                                                                                                                                                                                                                                                 This sequence represents a fragment of the glutamic acid decarboxylase 65 (GAD65) protein. The invention relates to a method of ameliorating GAD associated autoimmune disorders by administering a GAD65 peptide to the patient. The method can be used for ameliorating GAD associated autoimmune disorders such as IDDM (insulin dependent diabetes mellitus) and Stiff man disease. GAD65 can also be useful for screening drugs that alter GAD function, for generating monoclonal antibodies and in immunoassays. GAD65 is an effective diagnostic tool for predicting IDDM and the diagnosis is quite easy. It is also possible to obtain much larger quantities of polypeptide via recombinant techniques than are available from natural sources.
                                           GAD65; glutamic acid decarboxylase 65; autoimmune disorder; insulin dependent diabetes mellitus; Stiff man disease; diac
                                                                                 GAD65
                                                                                                         03-APR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Column 33; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ameliorating glutamic acid decarboxylase associated autoimmune disorders such as insulin dependent diabetes mellitus and Stiff man
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAD65; glutamic acid decarboxylase 65; autoimmune disorder; insulin dependent diabetes mellitus; Stiff man disease; diac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAD65 fragment, peptide #17
          Homo sapiens
                                                                                                                                                      Y59577 standard;
                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Tobin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (REGC ) UNIV CALIFORNIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-APR-1997;
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                                                                              fragment,
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                                                                                                                                                                                                                                                                  Similarity
19; Conserv
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                                                                                                                                                                                                                                                                 Conservative
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                                                                                                      (first entry)
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90US-0586536.
91US-0716909.
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                                                                               peptide #17
                                                                                                                                                      peptide; 20
                                                                                                                                                                                                                                                                           96.1%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Erlander
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                                                                                                                                                                                                                                                                           Score 98;
Pred. No.
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                                                                                                                                                                                                                                                                           DB 21; ; ; . 2.1e-11;
                                                                                                                                                                                                                                                                                       Length 20
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                                           diagnosis;
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WILDSOLF WIL
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Best Local S
Matches 19
27-OCT-1995;
07-JUN-1995;
07-JUN-1995;
07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This sequence represents a fragment of the glutamic acid decarboxylase 65 (GAD65) protein. The invention relates to a method of ameliorating GAD associated autoimmune disorders by administering a GAD65 peptide to the patient. The method can be used for ameliorating GAD associated autoimmune disorders such as IDDM (insulin dependent diabetes mellitus) and Stiff man disease. GAD65 can also be useful for screening drugs that alter GAD function, for generating monoclonal antibodies and in immunoassays. GAD65 is an effective diagnostic tool for predicting IDDM and the diagnosis is quite easy. It is also possible to obtain much larger quantities of polypeptide via recombinant techniques than are available from natural sources.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          disorders
disease -
                                                                                                                                                                                                                                                                                                                                     Soluble; fusion; major histocompatibility complex; MHC; heterodimer; complex; GAD 65; antiqen; binding groove; tole; autoantigen; disasse; insulin dependent; diabetes mellitus; antagonist; T cell; anergy; presenting cell.
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21-SEP-1990;
                                                                                                                                                                   19-DEC-1996.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ameliorating glutamic acid decarboxylase associated autoimmune disorders such as insulin dependent diabetes mellitus and Stiff man
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09-APR-1997;
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                                                                                                                                                                                                                                                                                  Mammalian spp
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tobin
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90US-0586536.
91US-0716909.
95US-0005964.
95US-0480002.
95US-0482133.
95US-0483241.
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                                                                                                                                 96WO-US10102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            peptide;
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100.0%; Pr
'"a 0;
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. 2.1e-11;
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                                                                                                                                                                                                                                                                                                                                                                tolerance; itus; IDDM;
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RESULT
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R7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Loc
Matches
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                       Albert W, Stahl P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel fused major histocompatibility complex:antigenic peptide complex - useful to induce tolerance to an autoantigen-related disease e.g. insulin-dependent diabetes mellitus
                                                                                                                                                                                             04-FEB-1994;
                                                                                                                                                                                                                                                                                                                                                 DE4418091-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                diagnosis; autoimmune
                                                                                            (ENDL/)
                                                                                                                                                                                                                                                                                                 27-JUL-1995.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     diabetes; T-cell subpopulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Peptide derived
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15; Conserv
                                                                                              ENDL J.
BOEHRINGER MANNHEIM GMBH
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ZYMOGENETICS
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                       Dornmair K, chendel D;
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94DE-4401629
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   from human glutamic acid decarboxylase 12.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   disease.
                                              Endl J,
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9.1e-08;
hes 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  production;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
W18842-70 are peptide fragments of the 65 kD human glutamic acid decarboxylase (GAD). The fragments are autoreactive substances used for diagnosis of insulin-dependent diabetes mellitus (IDDM). The diagnosis is determined by using a claimed method for diagnosis of cell-mediated diseases or a predisposition to cell-mediated diseases, which is effected by administering an autoreactive substance intradermally and establishing the diagnosis on the basis of the occurrence or lack of a positive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R76642-62 are derived from human glutamic acid decarboxylase and specifically react with T-cell sub-populations isolated from recently diagnosed Type-I diabetics. Pharmaceutical compsns. conty. these peptides and those shown in R77571-72, are useful for the diagnosis of a disease or predispositions of immune system disease, tumours, and autoimmune diseases, including diabetes. The peptides are able to detect specific T-cell subpopulations that are then used for antigen prodn.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 e.g.
                                                                                                              Claim 11;
                                                                                                                                                      Skin test for diagnosis of cell-mediated diseases, esp. diabetes
                                                                                                                                                                                                            Donie F, E
Pozzilli P,
                                                                                                                                                                                                                                                                                                                                                                                            Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          65 kD Glutamic acid decarboxylase peptide fragment 12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-JAN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 W18861;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            W18861 standard; peptide; 14 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Antigen-specific activated T-lymphocytes and their detection interaction with inventive peptide(s) of peptide-MHC complexe useful in diagnosis of e.g. diabetes and auto: immune diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1995-264505/35
                                                                                                                                                                                                                                                                                                            20-JUL-1995;
                                                                                                                                                                                                                                                                                                                                                                   DE19526561-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                         multiple
                                                                                                                                                                                                                                                                                                                                                                                                                                   predisposition; autoimmune; tumour; rheumatoid arthritis;
                                                                                                                                         involving
                                                                                                                                                                                                                                                     (BOEF ) BOEHRINGER MANNHEIM GMBH.
                                                                                                                                                                                                                                                                                                                                        23-JAN-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   insulin-dependent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
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                                                                                                                                                                                  1997-088254/09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                65 kD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 by reinjection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nmyammiarfkmfp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1; Fig 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                              Fig
                                                                                                                                                                                                                         End1
                                                                                                                                         intradermal admin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14
                                                                                                                                                                                                                                                                                                                                                                                                                                                     human; glutamic acid decarboxylase; autoreactive; diagnosis;
endent diabetes mellitus; IDDM; cell-mediated disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                            dı J,
Stahl
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                                                                                                            2; 12pp;
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                                                                                                                                                                                                                                                                                95DE-1026561
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                                                                                                                                                                                                              Ganz M,
P;
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100.0%;
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                                                                                                              German.
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                                                                                                                                         of
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Pred. No.
                                                                                                                                         auto:reactive
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                                                                                                                                                                                                                           Kientsch-engel
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3.3e-07;
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RESULT
R29627
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 Query Match
Best Local S
Matches 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
Matches 14; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local :
                                                                                       The peptide corresponds to a glutamic acid decarboxylase (GAD 65) sequence and may be used for the detection of autoantibodies to GAD 65. They can also be used for screening drugs such as those that alter GAD function and for generation of antibodies which can be used to detect GAD 65. Such methods can be used in the diagnosis and therapy of autoimmune diseases such as insulin dependent diabetes mellitus and "stiff man" syndrome. The polypeptide can be used to bind or block the continuance of an autoimmune response to GAD 65. It may also be coupled to therapeutic agents and used immunotherapeutically. See also R29625-9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       reaction at the site of administration. The method is used for diagnosis of autoimmune and tumour diseases, preferably T-cell-mediated diseases such as rheumatoid arthritis, multiple sclerosis and especially IDDM.
                                                                                                                                                                                                                                                             Glutamic acid decarboxylase isolated polypeptide(s) - useful for diagnosis and treatment of auto-immune diseases, e.g. insulin dependent diabetes meilitus, drug screening and antibody prodn.
                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Glutamic acid decarboxylase; auto immune disease; insulin dependent; diabetes mellitus; drug screening; antibody; stiff man syndrome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                     Claim 6; Page 20; 35pp; English.
                                                                                                                                                                                                                                                                                                                    WPI; 1992-425701/52.
                                                                                                                                                                                                                                                                                                                                               Clare-Salzier MJ, Erlander MG,
                                                                                                                                                                                                                                                                                                                                                                         (REGC ) UNIV CALIFORNIA.
                                                                                                                                                                                                                                                                                                                                                                                                   18-JUN-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                             17-JUN-1992;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EP519469-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAD peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R29627 standard; peptide; 23
Local Similarity hes 15; Conserv
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  Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /label- Thr, Glu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           72.5%;
             72.5%;
93.8%;
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 0
             Score 74; DB 13;
Pred. No. 5.6e-07;
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Pred. No. 3.3e-07;
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 Mismatches
                                                                                                                                                                                                                                                                                                                                               Kaufman
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                                                                                                                                                                                                                                                                                                                                               Tobin
                          Length 23;
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Indels
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Gaps
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Query Match Best Local S Matches

l Similarity 13; Conserv

Conservative

64.7%; Score 66; DB 100.0%; Pred. No. 8.9 tive 0; Mismatches

DB 18; 1 8.5e-06; 0

Length 13, Indels

0

Gaps

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RESULT 10
W35531
XX W35531
XX W35531
XX W35531
XX Glutam
XX T-cell
XX Scaffo
XX Uniden
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                                                             CC through a linker to a solid phase, forming a complex of (A)-solid phase.

CC through a linker to a solid phase, forming a complex of (A)-solid phase.

CC Where (A) comprises 10-50 amino acids capable of forming a secondary

CC structure in a benigh buffer after liberation from the solid phase, and

CC further the (A)-solid phase complex complex from the solid phase, and

CC and/or an immune mediator coupled on (A). The present sequence

CC represents a peptide used in an example from the present invention. An

CC (A)-solid phase complex can be used as a scaffold for the production of

CC chemical derivatives, characterised by covalently attaching molecules at

CC the incorporation into an Immunostimulating Complex (Iscom) resulting an

CC (A)-Iscom complex which is used for the chemical coupling of antigenic

CC substances in an aqueous solution by conjugation. (A) derivatised with

CC one or more peptides having fibronectin-, laminin- or vitronectin-like

CC binding activities can be used for the promotion of cell-attachment to

CC plastic surfaces, in particular to inhibit numour growth and metastasis

CC and for promotion of specifically-binding aptamers or as a diagnostic

CC agent. Such diagnostic-(A) molecules could be used to detect molecules

CC derived from or indicative of pregnancy or of a disease, such as an

CC infectious, autoimmune or cancerous disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Non-dendritic peptide carrier linked to a solid phase - usefu diagnostic agent and as a scaffold for production of chemical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       03-APR-1996; , 96DK-0000398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          T-cell stimulatory peptide; immunogen; non-dendritic; carrier; scaffold; inhibition; metastasis; wound healing; solid phase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Glutamic acid decarboxylase
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Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 27; Page 150; 262pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1997-512645/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            03-APR-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W35531;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Heegaard PMH, Jakobsen PH;
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RESULT
Y30061
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                            Glutamic acid decarboxylase isolated polypeptide(s) - useful for diagnosis and treatment of auto-immune diseases, e.g. insulin dependent diabetes mellitus, drug screening and antibody prodn.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Glutamic acid decarboxylase; auto immune disease; insulin dependent; diabetes mellitus; drug screening; antibody; stiff man syndrome.
         Peptide analogue of
                                 08-OCT-1999
                                                                                Y30061 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 5; Page 20; 35pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Clare-Salzier MJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-JUN-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAD peptide
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                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1992-425701/52.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (REGC ) UNIV CALIFORNIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-JUN-1991;
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                                                                                                                                                                                                          Local Similarity
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                                                                                                                                                                      5 AMMIARFKMFPEVKEK 20
                                                                                                                                          simaarykyfpevkxk 16
                                                                                                                                                                                              10;
                                                                                                                                                                                                                                                           24 AA;
                                                                                                                                                                                              Conservative
                                 (first entry)
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                                                                                peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Erlander MG,
         glutamic acid decarboxylase (GAD).
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                                                                                                                                                                                                         Score 53; DB 13; Pred. No. 0.0038;
                                                                                                                                                                                              Mismatches
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                                                                                                                                                                                                                                                                                                                    The polypeptide can be
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                                                                                                                                                                                              Ψ
                                                                                                                                                                                                                      Length 24;
                                                                                                                                                                                              Indels
                                                                                                                                                                                              0;
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RESULT Y99016 ID Y9

13

Y99016 standard; Peptide; 15 AA.

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fpevkek 8

14 FPEVKEK 20

Query Match Best Local S Matches 7

Local Similarity nes 7; Conserv

Conservative

0,

36.3%; 100.0%;

Score 37; Pred. No. Mismatches

DB 20; 1 2.1e+05;

Length

0

Gaps

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The present sequence represents a peptide analogue of glutamic acid decarboxylase (GAD), an autoantigen. The sequence is used in the CC conjugates of the invention. The specification describes a conjugate, ccompusing an autoantigen, an immune-reactive peptide fragment of an CC compusing an autoantigen, an immune-reactive peptide fragment of an CC conjugates induce regulatory memory T cells and enhance the secretion of infilammatory CC cytokines. The conjugates also stimulate in vitro proliferation of CC mammalian T lymphocytes. The conjugates can be used for ameliorating CC autoimmune disease, e.g. multiple sclerosis, juvenile diabetes or CC rheumatoid arthritis. They can be used for treating e.g. colitis, CC systemic lupus erythematosus, dermatomycsitis, Sydenham's chorea, CC systemic lupus erythema nodosum, Takayssu's arteritis, myasthenia gravis, CC erythematosus, erythema nodosum, Takayssu's arteritis, myasthenia gravis, CC gran nephropathy, polyarteritis nodosa, ankylosing spondylitis, CC goopasture's syndrome, thromboangilitis obliterans, Sjogren's syndrome, CC chronic active hepatitis, thyrotoxicosis, scleroderma, myocarditis, CC pemphigus vulgaris, idiopathic thrombocytopenia, Wegener's granulomatosis, membranous nephropathy, amyotrophic lateral sclerosis, CC tabidly procressive ollomerninonaphritis, or fibrosing alvenitious anemia, CC rapidly procressive ollomerninonaphritis, or fibrosing alvenitis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-OCT-1998;
27-JAN-1998;
25-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Proteolipoprotein; PLP; autoantigen; regulatory memory T cell; inhibitory cytokine secretion; inflammatory cytokine secretion; autoimmune disease; multiple sclerosis; juvenile diabetes; rheumatoid arthritis.
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New conjugates of autoantigens, fragments or analogs with fatty acids, used for treating autoimmune disease, e.g. juvenile diab
multiple sclerosis and rheumatoid arthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 15; Page 42; 68pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-478981/40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29-JUL-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W09937315-A1
                                     rapidly progressive glomerulonoephritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (BAIJ/) BAI J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Modified-site
  9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0104663.
98US-0072702.
98US-0090677.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US01884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "acylated with two n-caprionic acids, two
n-caprylic acids or with two n-lauric acids"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                         ę
                                     fibrosing alveolitis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      diabetes,
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07-AUG-2000 91066A

(first entry)

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                                 Ωy
                                                                                                                                                                                                         The present invention relates to a new pharmaceutical composition comprising a unit dose form of a peptide, or analogue, comprising an epitope selected from those represented by peptides y9812-Y9933 which care derived from various antigens for various human leucocyte antigen comparising an epitope selected from various antigens for various human leucocyte antigen comparising an epitope selected from various antigens for various human leucocyte antigen comparising to an HLA class I molecule at an IC-90 of less than or egual to 1,000 nM. The pharmaceutical can be used to induce a comparising the peptide containing pharmaceutical include autoimmune comparising the peptide containing pharmaceutical include autoimmune comparising the peptide containing pharmaceutical include autoimmune comparising and include autoimmune comparising and could therefore be used in cases of comparising and could therefore be used in cases of comparising and could therefore be used in cases of comparising and could therefore be used in cases of comparising and could therefore be used in cases of comparising and could therefore be used in cases of comparising and containing pharmaceutical include autoimmune conserved using the peptide solution, allergies, lyme diseases that can be conserved epitopes and myasthenia comparising and could anticomparity and myasthenia comparising immunogenic mixtures include prostate conserved to make monoclonal antibodies useful as potential diagnostic or therapeutic agents. The peptides may also be useful as diagnostic or therapeutic agents. The peptides may also be useful as diagnostic or therapeutic agents. The peptides may also be useful as diagnostic or therapeutic agents which are substantial risk of developing chronic infection. The selection of appropriate T and B cell epitopes should allow the development of epitope based vaccines particularly towards conserved ceptiopes of pathogens which are characterized by high sequence variability such as HIV, HCV and Malaria.
                                                                         Query Match
Best Local Similarity
Matches 6; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page 43; 60pp; English.
                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New compositions containing immunogenic peptide epitopes for various HLA class II DR molecules useful for inducing helper T cell response
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rheumatoid arthritis; multiple sclerosis; myasthenia gravis; AIDS; allograft rejection; allergy; lyme disease; hepatitis; prostate cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sette A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO9961916-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      glomerulonephritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human leucocyte antigen; HLA class II; immune response; chronic viral disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HLA class II binding antigen epitope peptide #205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (EPIM-) EPIMMUNE INC.
                                     10 RFKMFPEVKE 19
  \vdash
rfemfrelne 10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Southwood S,
                                                                                                                                                                              15 AA;
                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0087192.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      food hypersensitivity; malaria
                                                                                                31.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sidney
                                                                           ?
                                                                                              Score 32;
Pred. No.
                                                                             Mismatches
                                                                                          DB
. 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    antigen epitope; pharmaceutical;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cancer;
                                                                                                                 21;
                                                                         ۷,
                                                                                                                 Length 15;
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                                                                         Gaps
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W10301
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R27147
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Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                              The sequence comprises a short leader signal sequence (Leu)6 selected to enhance the expression of and/or stabilise the proinsulin when expressed in a host cell. This method can be used for the prodn. of other foreign gene products such as insulin, somatostatin or an interferon. See also R27146.
                            11-SEP-1997
                                                                 W10301 standard; peptide; 11
                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                              Enhanced expression and/or stabilisation of foreign gene prods. - using short selected leader signal sequences in host microorganisms
                                                                                                                                                                                                                                                                                                                                              N-PSDB; Q28661
                                                                                                                                                                                                                                                                                                                                                                                             (CANA-) CANADA NAT RES COUNCIL. (WURJ/) WU R J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                09-JAN-1985;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11-AUG-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CA1306208-C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Enhanced expression; foreign gene stabilisation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Proinsulin expression stabilising leader sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-MAY-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R27147 standard; Protein; 19
                                                                                                                                                                                                                                                                                            Example; Page 6; 17pp; English
                                                                                                                                                                                                                                                                                                                                                        WPI; 1992-308288/38
                                                                                                                                                                                                                                                                                                                                                                          Narang SA, Sung WL, Wu
                                                                                                                                                                                                                                                                                                                                                                                                                            09-JAN-1985;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          region
                                                                                      15
                                                                                                                    1 SNMYAMMIARFKMF 14 : |: ::: : |: | |
                                                                                                                                                                                                             19 AA;
                                                                                                                                                           Conservative
                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                            85CA-0471799
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note= "selected leader sequence
18..19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note= "proinsulin start"
                                                                                                                                                                    31.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "beta-Gal"
                                                                                                                                                                                                                                                                                                                                                                            짇
                                                                                                                                                                    Score 32;
Pred. No.
                                                                                                                                                            Mismatches
                                                                                                                                                                    . 19;
                                                                                                                                                                               13;
                                                                                                                                                                               Length 19
                                                                                                                                                            Indels
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Mammalian GAD 65 peptide

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RESULT
R72276
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                                                                                                                                                                                                                                                                                                                                                                          heterodimer:peptide complex, comprises DNA encoding 1st and 2nd MHC domains, linked by DNA encoding a 5-25 residue linker, and a DNA encoding an antigenic peptide able to associate with a peptide binding groove of the MHC molecule, e.g. the present peptide, linked in frame to the DNA encoding the 2nd domain by a DNA encoding a 5-25 residue linker. The complex can be used to induce immunological tolerance in adults susceptible to, or suffering from an autoantigen related disease, e.g. insulin dependent diabetes mellitus (IDDM), by antagonising the binding of particular T cells and antigen presenting cells, to induce anergy (immunological non-responsiveness) in the targeted T cell. As the heterodimers and corresponding antigen are permanently linked into a single chain, obviating the complex eliminates inefficient and non-specific
                                                                                                                                                                                                                                                                            Query Match
Best Local S
                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-JUN-1995;
07-JUN-1995;
07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel fused major histocompatibility complex:antigenic peptide complex - useful to induce tolerance to an autoantigen-related disease e.g. insulin-dependent diabetes mellitus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Soluble; fusion; major histocompatibility complex; MHC; heterodimer; complex; GAD 65; antigen; binding groove; tolerance; autoantigen; disease; insulin dependent; diabetes mellitus; IDDM; antagonist; T cell; anergy; presenting cell.
          Glutamic acid decarboxylase; GAD65; auotimmune insulin-dependant diabetes mellitus; stiff man
                                                    Glutamic acid
                                                                                                              R72276;
                                                                                 13-NOV-1995
                                                                                                                                      R72276 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A novel soluble fused major histocompatibility complex (MHC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 10; Page 109; 142pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Deshpande
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (ZYMO) ZYMOGENETICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO9640944-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mammalian spp.
                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1997-052337/05
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                                                                                                                                                                                                                                                                Local Similarity
nes 6; Conserv
                                                                                                                                                                   16
                                                                                                                                                                                                          6 snmyam
                                                                                                                                                                                                                                     1 SNMYAM 6
                                                                                                                                                                                                                                                                                                                                                              loading.
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                                                                                                                                                                                                                                                                                                                                     11 AA;
                                                                                                                                                                                                            11
                                                                                                                                                                                                                                                                  Conservative
                                                                                (first entry)
                                                   decarboxylase (GAD65) fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gross JA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    95US-0005964.
95US-0480002.
95US-0482133.
95US-0483241.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INC
                                                                                                                                                                                                                                                                30.4%; Score 31;
100.0%; Pred. No.
Live 0; Mismatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kindsvogel W,
                                                                                                                                       20
                                                                                                                                       8
                                                                                                                                                                                                                                                                red. No. 16;
Mismatches
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                                                                                                                                                                                                                                                                                           18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EP,
                                                                                                                                                                                                                                                                0;
           disorders; disease.
                                                                                                                                                                                                                                                                                            Length 11;
                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sheppard PO;
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RESULT
R72278
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                                                                                                                                                                                                                                                                                                                                                                        Matches
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                         Q86481 and Q86482 encode R71733 and R79105, rat and human glutamic acid decarboxylase (GAD65) respectively, from which the GAD65 fragments described in R72261-R72298 were derived. These fragments can be used to detect autoantibodies against GAD. e.g. to diagnose and treat GAD-related autoimmune disorders, such as insulin dependant diabetes mellitus or stiff man disease.
New polypeptide fragments of glutamic acid decarboxylase - diagnosis and treatment of auto:immune disease, esp. insuli
                              WPI; 1995-131360/17.
                                                                                                           24-AUG-1994;
                                                                                                                               23-MAR-1995
                                                                                                                                                    W09507992-A
                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                    Glutamic acid
                                                                                                                                                                                                                       Glutamic acid decarboxylase (GAD65) fragment.
                                                                                                                                                                                                                                           13-NOV-1995
                                                                                                                                                                                                                                                                                R72278 standard; Peptide; 20
                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 11; Page 76; 100pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  antibodies, hybridoma(s) etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           diagnosis and treatment of auto:immune disease, esp. insulin dependent diabetes, also related nucleic acid, vectors,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New polypeptide fragments of glutamic acid decarboxylase -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Clare-Salzler MJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24-AUG-1994;
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                                                                   (REGC ) UNIV
                                                                                        17-SEP-1993;
                                                                                                                                                                                           insulin-dependant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (REGC ) UNIV CALÎFORNIA.
                                                                                                                                                                                                                                                                                                                                1 SNMYAM 6
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15 snmyam 20
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                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
les 6; Conserv
                                                                                                                                                                                                                                                                                                     17
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                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                          (first entry)
                                                                     CALIFORNIA.
                                                  Š
                                                                                                                                                                                                    decarboxylase;
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                                                                                        9308-0123859
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                                                                                                           94WO-US09478
                                                  Erlander
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Erlander MG,
                                                                                                                                                                                                                                                                                                                                                                                   30.4%;
                                                                                                                                                                                            mellitus;
                                                  ΜĠ,
                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                   GAD65; auotimmune
                                                                                                                                                                                                                                                                                                                                                                                   Score 31;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kaufman DL,
                                                   Kaufman
                                                                                                                                                                                                                                                                                                                                                                                   30;
                                                  DL,
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                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                            disorders;
disease.
                                                                                                                                                                                                                                                                                                                                                                                            Length 20
                                                                                                                                                                                                                                                                                                                                                                          Indels
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                                                   Ą
   insulin
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RESULT
Y59576
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-JUN-1995;
21-SEP-1990;
18-JUN-1991;
This sequence represents a fragment of the glutamic acid decarboxylase 6 (GAD65) protein. The invention relates to a method of ameliorating GAD associated autoimmune disorders by administering a GAD65 peptide to the patient. The method can be used for ameliorating GAD associated autoimmune disorders such as IDDM (insulin dependent diabetes mellitus) and Stiff man disease. GAD65 can also be useful for screening drugs that alter GAD function, for generating monoclonal antibodies and in immunoassays. GAD65 is an effective diagnostic tool for predicting IDDM and the diagnosis is quite easy. It is also possible to obtain much larger quantities of polypeptide via recombinant techniques than are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q86481 and Q86482 encode R71733 and R79105, rat and human glutamic acid decarboxylase (GAD65) respectively, from which the GAD65 fragments described in R72261-R72298 were derived. These fragments can be used to detect autoantibodies against GAD, e.g. to diagnose and treat GAD-related autoimmune disorders, such as insulin dependant diabetes mellitus or stiff man disease.
                                                                                                                                                                                                                                                                                                                disorders such as insulin disease -
                                                                                                                                                                                                                                                                                                                               Ameliorating glutamic acid decarboxylase associated autoimmune disorders such as insulin dependent diabetes mellitus and Stiff
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAD65; glutamic acid decarboxylase 65; autoimmune disorder; IDDM; insulin dependent diabetes mellitus; Stiff man disease; diagnosis
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                                                                                                                                                                                                                                                         Example 11; Column 42; 61pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Tobin AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (REGC ) UNIV CALIFORNIA
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6; Conserv
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                                           This sequence represents a fragment of the glutamic acid decarboxylase 65 (GAD65) protein. The invention relates to a method of ameliorating GAD associated autoimmune disorders by administering a GAD65 peptide to the patient. The method can be used for ameliorating GAD associated autoimmune disorders such as IDDM (insulin dependent diabetes mellitus) and Stiff man disease. GAD65 can also be useful for screening drugs that alter GAD function, for generating monoclonal antibodies and in immunoassays. GAD65 is an effective diagnostic tool for predicting IDDM and the diagnosis is quite easy. It is also possible to obtain much larger quantities of polypeptide via recombinant techniques than are available from natural sources.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ameliorating glutamic acid decarboxylase associated autoimmune disorders such as insulin dependent diabetes mellitus and Stif
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAD65; glutamic acid decarboxylase 65; autoimmune disorder; IDDM; insulin dependent diabetes mellitus; Stiff man disease; diagnosis
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21-SEP-1990;
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Sequence
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15 snmyam 20
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20 AA;
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Pred. No.
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                                                                                                                                                                                                                                                                                       immunotherapeutic agent is used to treat autoimmune diseases such as insulin dependent diabetes mellitus, multiple sclerosis, autoimmune thyroiditis, uveoretinitis, rheumatoid arthritis or abnormal inflammatory immune responses. The NTTA induces regulatory tolerance by elicitation of regulatory T cells among T cells recognizing the NTTA but not participating in the immune response. The NTTA are capable of recognition by substantial populations of uncommitted T cells which can be primed, or biased, towards regulatory responses to provide effective treatment. The NTTA are effective in regulating undesirable immune responses even when target determinants used as agents promoting tolerance agents have failed to induce an effective regulatory T cell response. NTTAs as agents promoting tolerance are anticipated to be safer than use of target
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Amino acid sequences Y57063-Y57091 are examples of neglected target tissue antigens NTTAs. NTTAs are antigens (whole antigens or fragments) not involved in autoimmunity. These peptides and proteins are used in tmethod of the invention which involves administering an NTTA as an antigen based immunotherapeutic agent, to a host afflicted with an autoimmune response associated with an autoimmune disease. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Neglected target tissue antigen; NTTA; autoimmunity; autoimmune response; immunotherapeutic agent; insulin dependent diabetes mellitus; multiple sclerosis; autoimmune thyroiditis; rheumatoid arthritis;
                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                            determinants.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure;
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Protein; 14 AA.

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                                                              Target binding assembly; nucleic acid recognition unit; NF-kappa-B; SP1; TATA; human papillomavirus; HPV; HPV E2; human immunodeficiency virus; HIV LTR; Tat binding unit; probe; assembly sequence; asymmetry sequence; nuclear localisation signal sequence; human cell; HPV LTR; HIV; bacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cloning and expression of new HTLV-III DNA - used to obtain polypeptide(s) and antibodies for diagnosis, prevention and treatment of HTLV-III infection, partic. AIDS
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                       Synthetic
                                                             nuclear localisation signal sequence;
                                                                                                                            Nuclear localisation signal.
                                                                                                                                                       19-FEB-1997
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23-JAN-1985;
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85US-0693866.
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                                                                                                                                                                                                                                                                                                                                    Score 30;
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                                                                                                                                                                                                                                                                                                                                               Length 14;
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RESULT
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Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LTR, human immunodeficiency virus (HIV) LTR and Tat binding units. The linker sequence is an oligopeptide, which does not interfere with NAR function, but provides stability and control over the spacing of the NAR from the rest of the TBA. The OSA is an attached support or indicator, or other means of localisation of the probe. The probe can be used in a method for detecting or localising a specific target nucleic acid sequence (TNA). The method is highly sensitive, and has a high degree of specificity. The method can be used for detecting specific nucleic acid sequences, including those found in human cells, in HIV, HPV, and other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This sequence represents a nuclear locallisation sequence of a target binding assembly (TBA) of the invention. The TBA is recognised by the target binding region (TBR) of a probe of the invention. The probe of the invention contains a TBR, a booster binding region (BBR), and an optional support or attachment (OSA). The TBA contains at least one nucleic acid recognition unit (NAR), and optionally a linker sequence, assembly sequence, an asymmetry sequence, a nuclear localisation signal
                                                                                                                                               Osteichthyes;
                                                                                                                                                                            C-terminal of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence, and an OSA. The assembly sequence and asymmetry sequences are responsible for the folding and association of the NARS. The NARS are selected from NF-kappa-B, SP1, TATA, human papillomavirus (HPV) E2, HPV
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                                                                                                                  Pleuronectiformes paralichthys
                                                                                                                                                                                                          13-DEC-1990
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26-SEP-1988;
                           20-OCT-1988;
                                                                                                                                                                                                                                                                   R06363 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nucleic acid containing systems, including bacteria and viruses.
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Best Local S
Matches 4
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This sequence is a M.hpyl protein fragment found in plasmid pRMp100. The plasmid also contains fragments of proteins CysE and IceA derived from Helicobacter pylori strain 60190. This plasmid is used in method which provides an IceA protein or fragments of the protein capable of being used in standard immunoassays to detect H. pylori-specific antibodies, particularly for diagnosis, especially antibodies characteristic of IceA-positive strains which are ulcerogenic. Detecting presence of
                                                                                                                                                                                                                                                                      New Helicobacter pylori proteins - induced by contact with epithelium and related DNA, are associated with ulcer formation useful in diagnosis and immunisation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic.
Helicobacter pylori.
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N-PSDB; V43963.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Blaser MJ,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          peptic ulcer;
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                                                                                                                                                                                                                      Disclosure; Fig 2; 107pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-MAY-1997;
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ses 4; Conserv
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RESULT
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                  This sequence is a M.hpyl protein fragment found in plasmid pRMP100. This plasmid also contains fragments of proteins CysE and IceA derived from Helicobacter pylori strain J178. This plasmid is used in method which provides an IceA protein or fragments of the protein capable of being used in standard immunoassays to detect H. pylori-specific antibodies, particularly for diagnosis, especially antibodies characteristic of IceA-positive strains which are ulcerogenic. Detecting presence of IceA-positive strains also allows the risk of developing gastric carcinoma to be assessed. Ligands, particularly antibodies, that recognise IceA proteins are used to treat peptic ulcers, while immunisation with IceA-negative H. pylori is used to protect against information with IceA-negative H. pylori is used to protect against
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IceA-positive strains also allows the risk of developing gastric carcinoma to be assessed. Ligands, particularly antibodies, that recognise IceA proteins are used to treat peptic ulcers, while immunisation with IceA-negative H. pylori is used to protect against infection (and its consequences such as ulcers, gastritis and gastric cancer). Immunogenic IceA fragments, or the nucleic acid encoding them, can also be used for vaccination. Antibodies (Ab) raised against IceA can be used therapeutically or to screen other strains for homologous proteins. Expression of IceA is strongly correlated with ulceration, so detecting IceA allows differentiation between ulcerogenic and
                                                                                                                                                                                                                                                                                                                                                                                                                                        New Helicobacter pylori proteins - induced epithelium and related DNA, are associated waseful in diagnosis and immunisation
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DB; V44037.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Thompson
                                                                                                                                                                                                                                                                                                                                                                                                                   d by contact with with ulcer formation,
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gastritis and gastric
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(and its consequences such as ulcers,

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                                                                     Query Match
Best Local
                                                          Matches
                                                                                                                                                                     cancer). Immunogenic IceA fragments, or the nucleic acid encoding them, can also be used for vaccination. Antibodies (Ab) raised against IceA can be used therapeutically or to screen other strains for homologous proteins. Expression of IceA is strongly correlated with ulceration, so detecting IceA allows differentiation between ulcerogenic and
                                                                                                                                 Sequence
                                                                                                                                                            non-ulcerogenic strains.
                                                       Local Similarity les 4; Conserv
:::|: | :||
6 skyklipfike 16
                              9 ARFKMFPEVKE 19
                                                                                                                                 25 AA;
                                                          Conservative
                                                                        29.4%;
                                                          Ç,
                                                                        Score 30;
Pred. No.
                                                            Mismatches
                                                                                       19;
                                                            2
                                                                                       Length
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                                                                                                                                                                                                                        IceA can
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Title:
Perfect score:
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence:
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                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       seq
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Gapop 10.0 , Gapext 0.
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SUMMARIES
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Compugen Ltd.
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9.913 Million cell updates/sec
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Result No.	Score	Query Match 1	Query Match Length DB	æ	ID	Description
٠,	. 113	100.0	20	18	W18844	65 kD Glutamic aci
N	113	100.0	20	18	W01795	Human 65 kD glutam
ω	86	76.1	22	16	R72270	Glutamic acid deca
4	86	76.1	22	21	Y59571	GAD65 fragment, pe
տ	50	44.2	20	16	R72271	œ.
σ	50	44.2	20	21	Y59551	GAD65 fragment, pe
7	35	31.0	15	19	W63553	Beta (1 -> 4)-N-ac
œ	35.	31.0	21	18	W31018	Mugwort pollen all
9	34	30.1	23	18	W31051	Mugwort pollen all
10	33	29.2	17	20	Y14278	Chemokine peptide,
ייי	ω	29.2	23	13	R20273	Beta-2 integrin pe
12	ω ω	29.2	23	17	W02061	Human beta2 integr

Skin test for diagnosis of cell-mediated diseases, esp. diabetes - involving intradermal admin. of auto:reactive substances

WPI; 1997-088254/09.

Donie F, Endl J, Ganz M, Jung G, Pozzilli P, Stahl P; (BOEF) BOEHRINGER MANNHEIM GMBH.

Kientsch-engel

45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13
28.5	29	29	29	29	29	29	29	29	29	29	29	30	30	31	31	31	31	31	32	32	32	32	32	32	32	32	32	33	33	33	<u>ω</u>	33
25.2	٠	25.7	٠	٠	•	•	•		25.7	•	٠	•	•		٠	27.4	٠	•	•	٠	•		•	٠	•	•	•	٠	٠	29.2	•	•
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W16211	R85706	R11415	W40241	W16845	2	Y41871	R82544	W17995	R93652	Y20370	W21324	P82907	R12838	W97646	W89562	Y39986	R74066	Y24751	¥43407	Y42239	Y43408	Y43404	Y42240	Y42236	Y43409	Y42241	Y34179		W24260	570		95
Peptide containing	cytokerat	Immu	H. pylori Urease A	Helicobacter pylor	æ	heumatoid	G. oxydans T100 L-	Helicobacter pylor	HIV principal neut		Glucagon precursor	Acetylcholinestera	HIV protecting vac	Breast-specific BS	heat-	FIV ORF(51-71) pep		rrin	ivalent	lent	Multivalent ligand	Multivalent ligand		lent		ent	œ	Fragment derived f	3	l fragm		Interferon-gamma i

ALIGNMENTS

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20-JUL-1995;
                                                                                                                                                                                                   GAD; 65 kD; human; glutamic acid decarboxylase; autoreactive; diagnosis; insulin-dependent diabetes mellitus; IDDM; cell-mediated disease;
                                                                                                             20-ЈОТ-1995;
                                                                                                                                                DE19526561-A1
                                                                                                                                                                Synthetic
                                                                                                                                                                                  predisposition; autoimmune; tumour; rheumatoid arthritis; multiple sclerosis.
                                                                                                                                                                                                                           65 kD Glutamic acid decarboxylase peptide fragment III.
                                                                                                                                                                                                                                              05-JAN-1998 (first entry)
                                                                                                                                                                                                                                                               W18844;
                                                                                                                                                                                                                                                                              W18844 standard; peptide; 20
                                                                                                                               23-JAN-1997
                                                                                            95DE-1026561.
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Matches
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Best Local :
            The present peptide is a framgent of the human 65 kD glutamine decarboxylase (GAD), which can be used to diagnose, or diagnose a predisposition to, a tumour or immunological disease, preferably an autoimmune disease, especially diabetes. It can also be used as a reagent to determine specific T cell subpopulations, in medicaments to treat or prevent immunological diseases, preferably autoimmune diseases, especially diabetes, to produce antigens, especially subpopulations, which can be used to produce antigens or for subpopulations, which can be used to produce antigens or for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  W18842-70 are peptide fragments of the 65 kD human glutamic acid decarboxylase (GAD). The fragments are autoreactive substances used for diagnosis of insulin-dependent diabetes mullitus (IDDM). The diagnosis is determined by using a claimed method for diagnosis of cell-mediated diseases or a predisposition to cell-mediated diseases, which is effected by administering an autoreactive substance intradermally and establishing the diagnosis on the basis of the occurrence or lack of a positive reaction at the site of administration. The method is used for diagnosis of autoimmune and tumour diseases, preferably T-cell-mediated diseases such as rheumatoid arthritis, multiple sclerosis and especially IDDM.
                                                                                                                                                                                   Claim 1; Page 12; 15pp; German.
                                                                                                                                                                                                                                     Glutamine decarboxylase peptide(s) -
                                                                                                                                                                                                                                                                        WPI; 1997-078452/08
                                                                                                                                                                                                                                                                                                        Stahl P,
                                                                                                                                                                                                                                                                                                                                                                                                                          14-JUL-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DE19525784-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W01795;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 W01795 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-JAN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; glutamine decarboxylase; GAD; diagnosis; predisposition; tumour; immunological; disease; autoimmune; diabetes; reagent;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-OCT-1997
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                                                                                                                                                                                                                                                                                                                                                         (BOEF ) BOEHRINGER MANNHEIM GMBH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               reinjection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               prevention; production; antigen; immunogen; tolerogen; isolation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                determination;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20;
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                                                                                                                                                                                                                                                                                                                         Boitard C,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                glutamine decarboxylase peptide.
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Pred. No. 6.9e-12;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                      Jung
                                                                                                                                                                                                                                     for diagnosis and therapy of
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                                                                                                                                                                                                                                                                                                                        Schendel
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Best Local Similarity
                                                                                                                                                                                      Q86481 and Q86482 encode R71733 and R79105, rat and human glutamic acid decarboxylase (GAD65) respectively, from which the GAD65 fragments described in R722618. Were derived. These fragments can be used to detect autoantibodies against GAD, e.g. to diagnose and treat GAD-related autoimmune disorders, such as insulin dependant diabetes mellitus or stiff man disease.
                                                                                                                                                                                                                                                                                  New polypeptide fragments of glutamic acid decarboxylase -diagnosis and treatment of auto:immune disease, esp. insulidependent diabetes, also related nucleic acid, vectors, antibodies, hybridoma(s) etc.
                                                                                                                                                                                                                                                                                                                                                          Clare-Salzler MJ, Erlander MG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                   Y59571 standard;
                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                     17-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Glutamic acid decarboxylase; GAD65; auotimmune disorders;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Glutamic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R72270;
                                                                                                                                                                                                                                                               Example 11; Page 76; 100pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                         24-AUG-1994;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          insulin-dependant diabetes mellitus; stiff man disease
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                   peptide;
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                                                                                                                            Score 86;
Pred. No.
                    AA
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                                                                                                                 Mismatches
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                                                                                                                           DB 16; 1
1.8e-07;
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21-SEP-1990;
18-JUN-1991;
                                                                                                                                                                                                                                                                                                                                                                               This sequence represents a fragment of the glutamic acid decarboxylase 65 (GAD65) protein. The invention relates to a method of ameliorating GAD associated autoimmune disorders by administering a GAD65 peptide to the patient. The method can be used for ameliorating GAD associated autoimmune disorders such as IDDM (insulin dependent diabetes mellitus) and Stiff man disease. GAD65 can also be useful for screening drugs that alter GAD function, for generating monoclonal antibodies and in immunoassays. GAD65 is an effective diagnostic tool for predicting IDDM and the diagnosis is quite easy. It is also possible to obtain much larger quantities of polypeptide via recombinant techniques than are
                                               Glútamic acid decarboxylase; GAD65; auotimmune disorders; insulin-dependant diabetes mellitus; stiff man disease.
                                                                                                               13-NOV-1995
W09507992-A.
                         Homo sapiens
                                                                                     Glutamic acid decarboxylase (GAD65) fragment.
                                                                                                                                         R72271;
                                                                                                                                                                 R72271 standard;
                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 11; Column 42; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ameliorating glutamic acid decarboxylase associated autoimmune disorders such as insulin dependent diabetes mellitus and Stif
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2000-095930/08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tobin AJ,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAD65; glutamic acid decarboxylase 65; autoimmune disorder; IDDM; insulin dependent diabetes mellitus; Stiff man disease; diagnosis;
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90US-0586536.
91US-0716909.
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                                                                                                                                                                 Peptide;
                                                                                                                                                                                                                                                                                           76.1%; Score 86; 100.0%; Pred. No.
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Best Local :
                                                                                               07-JUN-1995;
21-SEP-1990;
18-JUN-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q86481 and Q86482 encode R71733 and R79105, rat and human glutamic acid decarboxylase (GAD65) respectively, from which the GAD65 fragments described in R72261-R72298 ware derived. These fragments can be used to detect autoantibodies against GAD, e.g. to diagnose and treat GAD-related autoimmune disorders, such as insulin dependant diabetes mellitus or stiff man disease.
                                                                                                                                                                                                                                                                                                                             Y59551;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New polypeptide fragments of glutamic acid decarboxylase - for diagnosis and treatment of auto:immune disease, esp. insulin dependent diabetes, also related nucleic acid, vectors,
Ameliorating glutamic acid decarboxylase associated autoimmune disorders such as insulin dependent diabetes mellitus and Stiff man
                                                                                                                                                                                                                                             GAD65; glutamic acid decarboxylase 65; autoimmune disorder; IDDM;
insulin dependent diabetes mellitus; Stiff man disease; diagnosis
                                                                                                                                                                                                                                                                               GAD65 fragment, peptide #11.
                                                                                                                                                                                                                                                                                                    03-APR-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                  Y59551 standard; peptide;
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                                                     Tobin AJ, Kaufman DL,
                                                                                                                                             09-APR-1997;
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                                                                                                                                                                                          US5998366-A.
                                                                                                                                                                                                             Homo sapiens
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90US-0586536.
91US-0716909.
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100.0%;
                                                        Erlander MG
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Pred. No.
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0.1;
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Best Local Similarity
Matches 9; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GAD65) protein. The invention relates to a method of ameliorating GAD associated autoimmune disorders by administraring a GAD65 peptide to the patient. The method can be used for ameliorating GAD associated autoimmune disorders such as IDDM (insulin dependent diabetes mellitus) and Stiff man disease. GAD65 can also be useful for screening drugs that alter GAD function, for generating monoclonal antibodies and in immunoassays. GAD65 is an effective diagnostic tool for predicting IDDM and the diagnosis is quite easy. It is also possible to obtain much larger quantities of polypeptide via recombinant techniques than are
Sequences shown in W63543 to W63556 represent fragments of beta (1 -> 4)-N-acety1glucosaminy1-transferase (GnT-IV) enzyme. The invention provides bovine and human GnT-IV enzymes that can be used for converting sugar chain subunits having one structure to another structure. Vectors containing the DNA sequences encoding these enzymes can be used to transform host cells for the production of the GnT-IV enzymes. The enzymes are useful in the production of branched oligosaccharides and
                                                                                                                  Claim
                                                                                                                                                          Recombinant beta(1-4)N-acetyl:glucosaminyl:transferase - allows production of difficultly accessible branched poly:saccharides
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Beta (1 -> 4)-N-acetylglucosaminyl-transferase; GnT-IV; bovine; human; enzyme; sugar chain subunit; branched oligosaccharide; polysaccharide; drug; reagent; food; biopolymer; glycoprotein; erythropoietin.
                                                                                                                                                                                                       WPI; J1998-348516/30
                                                                                                                                                                                                                                   Minowa M,
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12-DEC-1996;
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                                                                                                                                              food and
                                                                                                                                                                                                                                                              (KIRI ) KIRIN
                                                                                                                                                                                                                                                                                                                                    10-DEC-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standard;
                                                                                                                                              drug
                                                                                                                  Page 49; 112pp; Japanese
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                                                                                                                                                                                                                                 Oguri S,
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ilarity 100.0%;
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96JP-0332411.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      peptide;
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                     W31018-W31040 are B cell epitopes of mugwort pollen co-factor-independent phosphoglycerate mutase (PGM-i) isoform Art6. PGM-i is a highly conserved plant allergen (panallergen) which can cause cross-reactivity in patients allergic to pollen and plant-derived foods. PGM-i and it's B cell and T cell epitopes can be used for the in vitro detection of allergy against PGM-i, by measuring serum IgE or a cellular reaction. They can also be used in immunotherapy and will not cause an autoimmune response because PGM-i is significantly different from the human enzyme, which is co-factor dependent.
                                                                                                                                                                   New recombinant DNA encoding plant phospho:glycerate antigenic epitope(s) - useful for diagnosis or treatmallergies to pollen and plant-derived foods
                                                                                                                                                                                                                    WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Cofactor-independent phosphoglycerate mutase; PGM-1; E.C. Timothy grass; pollen; allergy; plant allergen; panallerge cell; epitope; immunotherapy; detection; diagnosis; hay
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            polysaccharides which are difficult of access by other methods. 'also useful in the production of drugs, reagents and foods and in modifying the properties of bippolymers containing sugar chains. enzyme may also be used for the preparation of glycoproteins such
 Sequence
                                                                                                                                               Disclosure;
                                                                                                                                                                                                                                                      Breitenbach
                                                                                                                                                                                                                                                                                                    02-AUG-1995;
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  21 AA;
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                                                                                                                                              Fig 11a;
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Rheinberger |
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diagnosis; hay fev
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Best Local :
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                                                                                                                                                                                                                                                     or a cellular reaction. They can also be used in immunotherapy and will not cause an autoimmune response because PGM-1 is significantly different from the human enzyme, which is co-factor dependent.
                                                                                                                                                                                                                                                                                        W31051-W31072 are B cell epitopes of mugwort pollen co-factor-independent phosphoglycerate mutase (PGM-1) isoform Art17. PGM-1 is a highly conserved plant allergen (panallergen) which can cause cross-reactivity in patients allergic to pollen and plant-derived foods. PGM-1 and it's B cell and T cell epitopes can be used for the invito detection of allergy against PGM-1, by measuring serum IgE
                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Fig 11b;
                                                                                                                                                                                                                                                                                                                                                                                                      New recombinant DNA encoding plant phospho:glycerate mutase or antigenic epitope(s) - useful for diagnosis or treatment of allergies to pollen and plant-derived foods
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-AUG-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Artemisia vulgaris.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cofactor-independent phosphoglycerate mutase; PGM-1; E.C. 5.4.21; Timothy grass; pollen; allergy; plant allergen; panallergen; B cell; T cell; epitope; immunotherapy; detection; diagnosis; hay fever; conserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mugwort pollen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-JAN-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  W31051;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         W31051 standard; peptide; 23
          29-JUL-1999
                                  Y14278;
                                                          Y14278 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1997-145695/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13-FEB-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO9705258-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (BIOM-) BIOMAY PRODN & HANDELS GMBH
                                                                                                                    10 wkladhpk 17
                                                                                                                                             2 WELADQPQ 9
                                                                                                                                                                     Similarity
5; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Richter K,
                                                                                                                                                                                                                                 23
                                                                                                                                                                    Conservative
       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             95AT-0001320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  allergen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ebner C, Enyc. ... K, Rheinberger H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     96WO-AT00141
                                                        peptide;
                                                                                                                                                                               30.1%;
                                                                                                                                                                                                                                                                                                                                                                                160pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B
                                                          17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Engel E, Ferreira F,
                                                                                                                                                                     2
                                                                                                                                                                                 Score 34;
Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 epitope.
                                                                                                                                                                     Mismatches
                                                                                                                                                                              DB
45;
                                                                                                                                                                                              18;
                                                                                                                                                                     1;
                                                                                                                                                                                            Length 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              J11ek
                                                                                                                                                                     Indels
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                                                                                                                                                                     Gaps
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qlacnptnl--iklhc

XXXX

R20273;

R20273 standard; peptide; 23

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11

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3 ELADQPQNLEEILMHC 18

Query Match
Best Local Similarity
Matches 8; Conserv

Conservative

'n

29.2%;

Score 33; Pred. No.

20;

Length 17;

2

Gaps

1:

ced. No. 46;
Mismatches

Sequence

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enhancing an inflammatory response, an immune response or haematopoietic cell-associated activity at a tumour site. They can also be used for preventing or inhibiting an indication associated with haematopoietic cell recruitment or histamine release from basophils or mast cells. They can also be used to modulate the chemokine-induced activity of cen also be used to modulate the chemokine-induced activity of the cascular indication, e.g. coronary artery disease, myocardial infarction, cunstable angina pectoris, atherosclerosis, or vasculitis, lentiviral confection or replication (e.g. HIV), low bone mineral density, a cunstable angina pectoris, atherosclerosis, or vasculitis, lentiviral confection or replication (e.g. HIV), low bone mineral density, a cunstable infection in a vertebrate animal (e.g. malaria), an autoimmune consistic infection in a vertebrate animal (e.g. malaria), an autoimmune constituted provided to enhance wound healing, to prevent or conscituted with a mammal, to enhance wound healing, to prevent or constituted and the product or intermediate in the arachidonic acid pathway and where leukotriene, thromboxane and/or conscituted with elevated mystalbhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chemokine; immune response; monocyte chemoattractant protein-1; MCP-1; chemokine-induced activity; inflammatory response; vascular indication; haematopoietic cell-associated activity; tumour; coronary artery disease; myocardial infarction; unstable angina pectoris; atherosclerosis; asthma; vasculitis; lentiviral infection; low bone mineral density; suppressor; parasitic infection; autoimmune disease; psoriasis; wound healing;
                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to chemokine peptides and mimetics, particularly derived from monocyte chemoattractant protein-1 (MCP-1). The chemokine peptides and variants and derivatives can inhibit or reduce or increase, or enhance chemokine-induced activity. They can be used for increasing or enhancing an inflammatory response, an immune response or haematopoietic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chemokine peptide, CRD Cys0Cys16peptide2(1-15)[SDF1].
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New chemokine peptides and mimetics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1999-347124/29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Grainger DJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              W09912968-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                arachidonic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This sequence represents a fragment of the chemokine SDF1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Fig 14; 208pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (NEOR-) NEORX CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-MAR-1999
                                           associated with elevated TNF-alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      transplant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kanaly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97US-0927939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US19052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              pathway.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      rejection; rheumatoid arthritis; allergy; therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ST,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tatalick LM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 English
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10-APR-1992

(first entry)

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RESULT 12
W02061
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                                                                                                                                                                                                                                                                                                                                               The peptide (SEQ ID NO: 20) corresponds to residues 112-134 of CD11b alpha subunit of beta 2 integrin. The sequence occurs immediately prior to the A domain which is conserved in the CD11c and CD11a subunits and also in the collagen/heparin/platelet Gp1 binding regions of the mature von Willebrand factor. The peptide may be synthesised or prepd. by recombinant techniques using the gene, the sequence of which was disclosed by Arnaout et al., J. Cell Biol. 106:2153 (1988). (References are also provided for the DNA sequences of human CD18. CD11c and CD11a). The peptide is capuseful for treatment of ischaemia reperfusion injury, burns, frostbite, acute arthritis, asthma and adult respiratory distress syndrome. It may also be used to block intra-islet infiltration of macrophages associated with insulin-dependent diabetes mellitus, and for controlling phagocyte-mediated tissue damage to heart muscle during acute cardiac insufficiency.
                                                                                                                                                                                                                            Query Match
Best Local Similarity 40...
7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Beta-2 integrin peptide CD11b, recombinant hetero-dimer CD11b/CD18 - or MAb against them; useful for inhibiting CD11/CD18 mediated immune response in control of phagocyte-mediated tissue
Beta2 integrin; A-domain; metal binding domain; inflammatory response;
                           Human beta2 integrin subunit CD11b, residues 112-134.
                                                        09-APR-1997
                                                                                                               W02061 standard; peptide;
                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Arnaout MA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Immune response; phagocyte-mediated tissue damage; A domain; MAM; inflammation; CD11/CD18 complex; alpha subunit; CR3; Mo1; Mav-1; complement receptor type 3; heterodimer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 8; Page 73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1992-024197/03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-JAN-1991;
18-JUN-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-JUN-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GEHO-) GEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9119511-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Beta-2 integrin peptide derived from CD11b alpha subunit.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-DEC-1991
                                                                                                                                                                                      3 lrqqpqkfpealrgc 17
                                                                                                                                                                                                                     4 LADOPONLEEILMHC 18
                                                                                                                                                                                                                                                                                                                         23
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                                                        (first entry)
                                                                                                                                                                                                                                                                                                                        ΑĄ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       91US-0637830.
90US-0539842.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               84pp;
                                                                                                                                                                                                                                                               29.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                English.
                                                                                                                  23
                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                              Score 33; DB
Pred. No. 66;
                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                               13;
                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                            Length 23;
                                                                                                                                                                                                                                                  Indels
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                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 40...
7; Conservative
                                                                                                                            Interferon-gamma inducer protein; IFN-gamma; antiviral; virucide;
antitumour; antibacterial; immunoregulator; adoptive immunotherapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       In vitro identification of integrin function antagonists - 
measuring binding of A-domain peptide derived from integrin
ligand in presence and absence of candidate antagonist
                                                     EP712931-A2
                                                                                   Mus sp.
                                                                                                                                                                      Interferon-gamma inducer protein tryptic peptide (aa79-103).
                                                                                                                                                                                                    29-SEP-1996 (first entry)
                                                                                                                                                                                                                                 R99561;
                                                                                                                                                                                                                                                            R99561 standard; Peptide; 25 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 11; 111pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1996-371576/37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-JAN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-JAN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-AUG-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO9624063-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Arnaout MA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GEHO ) GEN HOSPITAL CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      inflammation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                immune response; inhibition; phagocyte-mediated tissue injury;
                                                                                                                                                                                                                                                                                                                                  3 lrqqpqkfpealrgc 17
                                                                                                                                                                                                                                                                                                                                                             4 LADOPQNLEEILMHC 18
                                                                                                                cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95US-0380167
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                                                                                                                                                                                                                                                                                                                                                                                                        29.2%;
46.7%;
                                                                                                                                                                                                                                                                                                                                                                                            0,
                                                                                                                                                                                                                                                                                                                                                                                                         Score 33;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                      . 66;
                                                                                                                                                                                                                                                                                                                                                                                                                       17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CD11b from Arnaout et al.,
                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                     Length 23
                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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10-NOV-1995;

95EP-0308055.

22-MAY-1996

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Best Local S
Matches 5
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10-MAR-1995;
18-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fukuda S,
Taniguchi
                                                                                                                                                                                                            Interferon gamma; inducer; IFNgamma; immunocompetent cell; antiviral; antitumour; antiseptic; immunoregulatory; platelet-increasing agent; therapy; prevention; condyloma acuminatum; renal cancer; brain cancer; granuloma; mycosis fungoides; rheumatism; allergy; cytotoxicity; AIDS; killer T-cell; interleukin-2; IL-2; tumour necrosis factor; TNF; killer T-cell; interleukin-2; IL-2; tumour necrosis factor; TNF;
           Kohno K, Kunikata T,
Tanimoto T, Torigoe K;
                                                                    10-FEB-1995;
14-JUL-1994;
                                                                                                       13-JUL-1995;
                                                                                                                                                      EP692536-A2
                                                                                                                                                                             Synthetic.
                                                                                                                                                                                                    adoptive
                                                                                                                                                                                                                                                                                                             30-AUG-1996
                                                                                                                                                                                                                                                                                                                                                         R92504 standard; peptide; 25 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tryptic peptides (R99561 and R99562) correspond to amino acids 79-103 and 26-43, respectively, of a novel interferon-gamma (IFN-gamma) inducer protein identified in mouse liver. The peptides were used to design PCR primers (T32405-06) that were utilised in the amplification of mouse liver cDNA, leading to the isolation of a clone (T32403) coding for mouse IFN-gamma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example A-3-6; Page 37; 48pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1996-252837/26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29-SEP-1995;
15-NOV-1994;
                                            (HAYB ) HAYASHIBARA SEIBUTSU KAGAKU
                                                                                                                             17-JAN-1996
                                                                                                                                                                                                                                                                                    Interferon gamma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 inducer protein (R99559).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   to treat and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (HAYB)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
les 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                   14
                                                                                                                                                                                                                                                                                                                                                                                                                    3 sfeemdppeniddi 16
                                                                                                                                                                                                                                                                                                                                                                                                                                           1 NWELADQPQNLEEI 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HAYASHIBARA SEIBUTSU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ,
M
                                                                                                                                                                                                   immunotherapy; monoclonal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kohno K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 interferon-gamma prodn.-inducing polypeptide -
prevent, e.g. viral disease, malignancies and i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tanimoto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95JP-0274988.
94JP-0304203.
95JP-0058240.
95JP-0078357.
95JP-0262062.
                                                                   95JP-0045057.
94JP-0184162.
                                                                                                       95EP-0304906
                                                                                                                                                                                                                                                                                   production inducer peptide #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29.2%;
35.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kunikata T,
                     Kurimoto M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tor igoe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 33;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KAGAKU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kurimoto M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>,</u>
                                                                                                                                                                                                   antibody.
                     Okamura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ushio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB
72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17;
                     Ħ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Okamura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                   Taniguchi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              useful
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W15702
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (see R92506), which induces interferon gamma (IFNgamma) production in immunocompetent cells. The protein is useful as an antiviral, antitumour, antiseptic, immunoregulatory and platelet-increasing agent. It can be used for treating or preventing AIDS, condyloma acuminatum, renal or brain cancer, granuloma, mycosis fungoides, rheumatism and allergy. The protein can also be used to induce IFNgamma production in cultured cells. The IFNgamma inducer strongly induces cytotoxicity of killer T-cells and when used with interleukin-2 (IL-2) and tumour necrosis factor (TNF), may improve the effect (or reduce side effects) cadoptive immunotherapy in tumours. The DNA encoding this protein (see adoptive immunotherapy in tumours. The DNA encoding then be purified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Protein that induces gamma interferon prodn. in immuno:competent
cells - used e.g. as antiviral or antitumour agent, also induces
cytotoxicity of killer cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1996-070177/08
              Disclosure;
                                                                                                                                                                                                             20-SEP-1996;
26-SEP-1995;
                                                                                                                                                                                                                                                                                         09-APR-1997
                                                                                                                                                                                                                                                                                                                     EP767178-A1.
                                                                                                                                                                                                                                                                                                                                                                                Interferon-gamma, IFN-gamma; antiviral; antioncotic; radiotherapy; immunoregulatory; antitumour agent; chemotherapy; leukopaenia; thromobocytopaenia; immunocompetent cell; asthma; hayfever; rheumatism; interleukin; killer cell.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-JAN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   W15702 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R92504 and R92505 represent fragments of the protein of the invention (see R92506), which induces interferon gamma (IFNgamma) production in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1; Page 21; 30pp; English.
                                         tumours and as antimicrobial agent etc
                                                                        Human protein that induces interferon-gamma prodn. in
                                                                                                      WPI; 1997-205381/19.
                                                                                                                                                                 (HAYB)
                                                                                                                                                                                                                                                           26-SEP-1996;
                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Internal fragment of interferon-gamma inducer protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (or assayed) using monoclonal antibodies.
                                                            mmuno:competent cells -
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                                                                                                                                                              HAYASHIBARA SEIBUTSU KAGAKU
                                                                                                                                 Fujii M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25 AA;
            Page 21; 26pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                               96JP-0269105.
95JP-0270725.
96JP-0067434.
                                                                                                                                                                                                                                                           96EP-0306997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 peptide; 25
                                                                                                                                    Kurimoto M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29.2%;
35.7%;
                                                          useful for adoptive immuno:therapy of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 33; DB
Pred. No. 72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                    Nukada Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17;
                                                                                                                                    Tanimoto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 25;
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Best Local S
Matches 5
                                                             The sequences given in W24259-61 are peptide fragments of a protein which induces interferon-gamma production in immunocompetent cells. This protein may be used as the mejor component in a drug for the prevention and treatment of e.g. malignant tumours, viral diseases,
                                                                                                                                                                                                 A drug
useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   production in immunocompetent cells. This protein enhances cytotoxicity of killer cells and induces their formation. It is used as an antioncotic agent for antitumour immunotherapy, an antiprical (including antioncotic agent for antitumour immunotherapy, an antiviral (including anti-ALDS) or antibacterial agent, and in the treatment of atopic or immune system diseases, e.g. asthma, hayfever or rheumatism. When formulated with interleukin-3, it is also used to treat leukopaenia and thombocytopaenia associated with radiotherapy or chemotherapy of leukaemia and other cancers. When used in antitumour immunotherapy, this novel protein significantly improves the immunotherapeutic effect of interleukin-2 (IL-2), compared with use of IL-2 alone, either when administered to the patient (before administration of the patient) and the state of the patient of the patient (intended for return the patient).
                                                                                                                                                Disclosure; Page 10; 12pp; Japanese.
Sequence
                              bacterial infections and i
to residues 80-104 of the
                                                                                                                                                                                                                                                WPI; 1997-369391/34
                                                                                                                                                                                                                                                                                                                               04-OCT-1995;
10-MAR-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Interferon-gamma; immunocompetent cell; malignant tumour;
viral disease; bacterial infection; immune disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W24260;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence represents an internal fragment of a protein from human cells, which induces interferon-gamma (
                                                                                                                                                                                immune diseases
                                                                                                                                                                                                                                                                                                                 29-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                24-JAN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                               17-JUN-1997.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Peptide #2 of human protein for induction of interferon-gamma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-OCT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W24260 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                             (HAYB ) HAYASHIBARA SEIBUTSU KAGAKU.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
nes 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        patient) are being grown.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NWELADOPONLEEI 14
                                                                                                                                                                                              containing a:polypeptide which induces interferon-gamma for treating e.g. malignant tumours, viral, bacterial or
25 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                              95JP-0279906.
95JP-0078357.
95JP-0274988.
                                                                                                                                                                                                                                                                                                                                                                               96JP-0028722.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29.2%;
                                              immune diseases.
                              human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 33; DB
Pred. No. 72;
6; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6,
                              protein.
                                              This peptide corresponds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18;
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                                      The present sequence represents a fragment derived from a murine colls. IFN-gamma is a protein which has antiviral, antioncotic and immunocompetent cells. IFN-gamma is a protein which has antiviral, antioncotic and immunocompetent cells immunoregulatory activities, and is produced by immunocompetent cells collinguated with antigens or mitogens. The present peptide was used to design probes which were used to isolate the corresponding human protein from human liver cells. The protein of the invention is used to treat IFN-gamma susceptible diseases, and also have use as a antiviral agent, antibacterial agent, antitumour agent, limmunoregulatory agent and blood platelet enhancing agent, Diseases which can be treated with the protein include viral diseases such as hepatitis, herpes syndrome, condyloma, and AIDS; bacterial diseases such as Candidiasis and malaria; solid malignant tumours such as renal cancer, mycosis fungoides, and cadult T, cell leukaemia, chronic myelogenous leukaemia, and malignant collentaemia; and immune diseases such as allery and resumation.
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Best Local Similarity
Matches 5; Conserv
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23-FEB-1995;
10-MAR-1995;
18-SEP-1995;
29-SEP-1995;
                                                                                                                                                                                                                                                                                                                               Novel polypeptides used susceptible diseases -
                                                                                                                                                                                                                                                                                                                                                                                                             Ushio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       renal cancer; mycosis fungoides; chronic granulomatous disease; blood cell malignant tumour; adult T cell leukaemia; chronic myelogenous leukaemia; malignant leukaemia; immune dise
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13-MAR-2000
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                                                                                                                                                                                                                                                                                                    Example A2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      antiviral; immunoregulatory; antigen; mitogen; Ifforman susceptible disease; antibacterial; antitumour; blood platelet enhancing agent; hepatitis; herpes syndrom AIDS; bacterial disease; Candidiasis; malaria; solid mali
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Fragment derived from a protein that induces IFN-gamma production.
                                                                                                                                                                                                                                                                                                                                                                                                                                           (HAYB ) HAYASHIBARA SEIBUTSU KAGAKU.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                interferon gamma production; IFN-gamma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rheumatism
                                and immune diseases such as allergy and rheumatism.
                                                                                                                                                                                                                                                                                                  Page 14; 42pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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95JP-0078357.
95JP-0262062.
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35.7%;
                                                                                                                                                                                                                                                                                                                                                                                                             Tanimoto T,
                                                                                                                                                                                                                                                                                                                                                 'n
                                                                                                                                                                                                                                                                                                  English.
                                                                                                                                                                                                                                                                                                                                                 the treatment of interferon-gamma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6,
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72;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       pes syndrome; condyloma; solid malignant tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    immunocompetent cell;
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                                                                                                                                                                                                                                                     by immunocompetent
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                                          This sequence represents a fragment of the human pre-proheparanase of the CC invention. The pre-proheparanase sequence was isolated from human CC platelets. The heparanase can be used for identifying agents which alter heparanase activity. The heparanase can be used for wound healing or for the convenience of heparanase activity and inflammation. It can be used for treating CC e.g. psoriasis, diabetic retinopathy or solid tumours, or for the degradation of heparin and the neutralisation of heparin's anticoagulant properties during surgery. Inhibitors of heparanase activity can be used CC in the treatment of arthritis, asthma, and other inflammatory diseases, CC vascular restenosis, atherosclerosis, tumour growth and progression, CC fibroproliferative disorders, and central nervous system (CNS) and conditionance and heparanase. The products can also be used for detection of and diagnosis. The purified heparanase, both recombinantly produced human heparanase and heparanase isolated from human platelet activity, allows CC for the convenient selection of compounds having anti-heparanase CC activity, i.e. inhibitors of heparanase activity, by measuring inhibition of heparanase activity can be measured the plantanese in the productive fragments from in
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Best Local S
Matches 5
                                                                                                                                                                                                                                                                                                                                                                                                    New isolated platelet heparanase polypeptides, used to develop products for, e.g. wound healing and blocking angiogenesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            W09943830-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; pre-proheparanase; platelet; wound healing; anglogenesis blocke inflammation; psoriasis; diabetic retinopathy; solid tumour; arthritis heparin degradation; anticogulant neutralisation; asthma; CNS disease inflammatory disease; vascular restenosis; atherosclerosis; diagnosis;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1999-540598/45.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (PHAA ) PHARMACIA & UPJOHN CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-MAR-1998;
24-FEB-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tumour growth;
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                               radiolabelled
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                                                                                                                                                                                                                                                                                                                                                                      8; 57pp; English.
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98US-0075706.
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                             (HSPG)/heparin
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Pred. No.
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72;
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solid tumour; arthritis;
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17

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Query Match Best Local Similarity

28.3**%**; 35.7**%**;

Score Pred.

% 32;

DB 81;

20;

Length 20;

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                                may also be used raise peptide-specific antibodies (used for detecting the peptides) and to identify and isolate compounds that interact with, and modulate activity of, AHR. AHR are relatively small, conserved sequences from different angiogenic peptides that are (largely) responsible for biological activity. They are cheaper to prepare than complete proteins; may be effective at lower doses; have long-lasting in vivo effect and good biodistribution following oral or parenteral administration. The present sequence represents a multivalent ligand peptide derivative:given in the present invention.
                                                                                                                                                                                               related angiogenic peptides may be anti-angiogenic, e.g. for treating tumours, cardiovascular disease (arteriosclerosis, ischaemia), obesity, osteoarthritis, duodenal ulcers, abnormal ocular vascularisation in diabetes, or they are proangiogenic, e.g. for promotion of wound healing and to stimulate neovascularisation around occluded blood vessels (a potential alternative to by-pass surgery or angioplasty). The multivalent ligands may be used in human or veterinary medicine. They
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Angiogenic homology region; AHR; thrombospondin 1; TSP-1; angiostatin endostatin; anticancer; antiangiogenic; cancer; cardiovascular diseas obesity; osteoarthritis; duodenal ulcer; abnormal neovascularisation;
                                                                                                                                                                                                                                                                                                                            angiogenic homology region (AHR) of thrombospondin (TSP) 4, angiost endostatin or TSP-1. Multivalent ligands based on the peptides and
                                                                                                                                                                                                                                                                                                                                                                                                    Claim 12; Fig 2; 76pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ben-Sasson SA;
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                                                                                                                                                                                                                                                                                                                                                                  The present invention specifically describes peptides comprising the
                                                                                                                                                                                                                                                                                                                                                                                                                                                         New peptides and derived multivalent ligands based on angiogenic homology regions, used to inhibit or promote angiogenesis, e.g. for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-601204/51.
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                                                                                                                                                                                                                                                                                                                                                                                                                                      treating
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             healing; arteriosclerosis; ischaemia; diabetes mellitus;
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                                                                                                                                                                                                                           The present invention specifically describes peptide derivatives comprising an angiogenic homology region (AHR) of endostatin. The peptide derivatives can be used for modulating angiogenesis in humans and conditions, including cancer, cardiovascular diseases (e.g. arteriosclerosis, ischaemic limbs and ischaemic myocardium), obesity, costeoarthritis, duodenal ulcers, abnormal ocular neovascularisation comparathritis, duodenal ulcers, abnormal ocular neovascularisation comparathritis, duodenal ulcers, abnormal ocular neovascularisation or conscitated e.g. with diabetes mellitus, and to promote wound healing or conscitated the growth of new blood vessels to bypass, e.g. blood vessel cocclusions. The peptide derivatives can also be used for the production of antibodies. The multivalent ligands may enable the administration of lower doses in order to achieve therapeutic efficacy, as compared with can univalent peptide chain. In addition, they can have long in vivo consistence orally or parenterally. The present sequence represents a multivalent ligand consistence orally or the production when administered orally or the present sequence represents a multivalent ligand consistence orally or the present sequence represents a multivalent ligand consistence or sequence represents a multivalent ligand consis
                                                                                Query Match
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                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New angiogenic peptide derivatives, used for treating e.g. cardiovascular diseases, obesity, osteoarthritis, duodenal abnormal neovascularisation and for wound healing -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1999-591075/50
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                                                                                                                                                                                             20 AA;
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                                                                                Conservative
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                                                                                                     28.3%;
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                                                                                Score 32; DB Pred. No. 81; 5; Mismatches
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RESULT
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 healing and to stimulate neovascularisation around occluded blood vessels (a potential alternative to by-pass surgery or angioplasty). The multivalent ligands may be used in human or veterinary medicine. The may also be used raise peptide-specific antibodies (used for detecting the peptides) and to identify and isolate compounds that interact with, and modulate activity of, AHR. AHR are relatively small, conserved sequences from different angiogenic peptides that are (largely) responsible for biological activity. They are cheaper to prepare than complete proteins; may be effective at lower doses; have long-lasting in vivo effect and good biodistribution following oral or parenteral administration. The present sequence represents a multivalent ligand hybrid peptide given in the present invention.
                                                                                                                                                                                                                                                         The present invention specifically describes peptides comprising the angiogenic homology region (AHR) of thrombospondin (TSP) 4, angiostadin endostatin or TSP-1. Multivalent ligands based on the peptides and related angiogenic peptides may be anti-angiogenic, e.g. for treating tumours, cardiovascular disease (arteriosclerosis, ischaemia), obesit osteoarthritis, duodenal ulcers, abnormal ocular vascularisation in diabetes, or they are proangiogenic, e.g. for promotion of wound
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Angiogenic homology region; AHR; thrombospondin 1; TSP-1; angiostatin; endostatin; anticancer; antiangiogenic; cancer; cardiovascular disease; obesity; ogteoarthritis; duodenal ulcer; abnormal neovascularisation; wound healing; arteriosclerosis; ischaemia; diabetes mellitus;
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Sequence
                                                                                                                                                                                                                                                                                                                                                                                                           Claim 7; Fig 2; 76pp;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New peptides and derived multivalent ligands based on angiogenic homology regions, used to inhibit or promote angiogenesis, e.g. i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1999-601204/51.
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                                                                                                                                                                                                                                                                                                                                                                                                             English.
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                                                                                                                                                       This sequence represents a fragment of the human pre-proheparanase of the invention. The pre-proheparanase sequence was isolated from human platelets. The heparanase can be used for identifying agents which alter heparanase activity. The heparanase can be used for wound healing or for blocking anglogenesis or inflammation. It can be used for treating the e.g. psoriasis, diabetic retinopathy or solid tumours or for the degradation of heparin and the neutralisation of heparin's anticoagulant properties during surgery. Inhibitors of heparanase activity can be used in the treatment of arthritis, asthma, and other inflammatory diseases, vascular restenosis, atherosclerosis, tumour growth and progression, fibroproliferative diseases. The products can also be used for detection and diagnosis. The purified heparanase, both recombinantly produced human heparanase and heparanase isolated from human platelet activity allows
for the convenient selection of compounds having anti-heparanase activity, i.e. inhibitors of heparanase activity, by measuring inhibition of heparanase activity. Inhibition of heparanase activity can be measured by blocking heparanase-mediated release of radioactive fragments from in vivo radiolabelled (HSPG)/heparin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New isolated platelet heparanase polypeptides, used to develop products for, e.g. wound healing and blocking angiogenesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               inflammation; psoriasis; diabetic retinopathy; solid tumour; an heparin degradation; anticoagulant neutralisation; asthma; CNS inflammatory disease; vascular restenosis; atherosclerosis; dis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 3; Fig 8; 57pp; English.
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mation; psoriasis; diabetic retinopathy; solid tumour; arthritis;
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98US-0075706.
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                             sequences from different angiogenic peptides that are (largely) responsible for biological activity. They are cheaper to prepare than complete proteins; may be effectively lower doses; have long-lasting in vivo effect and good biodistribution following oral or parenteral administration. The present sequence represents a multivalent ligand peptide derivative given in the present invention.
                                                                                                                              osteoarthritis, duodenal ulcers, abnormal ocular vascularisation in diabetes, or they are proangiogenic, e.g. for promotion of wound healing and to stimulate neovascularisation around occluded blood vessels (a potential alternative to by pass surgery or angioplasty). The multivalent ligands may be used in human or veterinary medicine. The may also be used traise peptide-specific antibodies (used for detecting the peptides) and to identify and isolate compounds that interact with, and modulate activity of, AHR. AHR are relatively small, conserved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Angiogenic homology region; AHR; thrombospondin 1; TSP-1; angiostatin; endostatin; anticancer; antiangiogenic; cancer; cardiovascular disease obesity; osteoarthritis; duodenal ulcer; abnormal neovascularisation; wound healing; arteriosclerosis; ischaemia; diabetes mellitus;
                                                                                                                                                                                                                                                                                                 angiogenic homology region (AHR) of thrombospondin (TSP) 4, and endostatin or TSP-1. Multivalent ligands based on the peptides
                                                                                                                                                                                                                                                                                                                                   The present invention specifically describes peptides comprising the
                                                                                                                                                                                                                                                                                                                                                                   Claim 12; Fig 2; 76pp;
                                                                                                                                                                                                                                                                                                                                                                                                                   New peptides and derived multivalent ligands based on angiogenic homology regions, used to inhibit or promote angiogenesis, e.g. i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ben-Sasson
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                                                                                                                                                                                                                                                                                                                                                                                                  treating tumours
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                                                                                                                                                                      osteoarthritis, duodenal ulcers, abnormal ocular neovascularisation associated e.g. with diabetes mellitus, and to promote wound healing or to stimulate the growth of new blood vessels to bypass, e.g. blood vessel occlusions. The peptide derivatives can also be used for the production of antibodies. The multivalent ligands may enable the administration of lower doses in order to achieve therapeutic efficacy, as compared with a univalent peptide chain. In addition, they can have long in vivo lifetimes and good biodistribution when administered orally or parenterally. The present sequence represents a multivalent ligand Tip-18.40 peptide derivative given in the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Angiogenic homology region; AHR; thrombospondin 1; TSP-1; angiostatin; endostatin; anticancer; antiangiogenic; cancer; cardiovascular disease; obesity; osteoarthritis; duodenal ulcer; abnormal neovascularisation; wound healing; arteriosclerosis; ischaemic limb; ischaemic myocardium; diabetes mellitus; blood vessel occlusion.
                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                       animals. The peptides can be used to treat a wide variety of disease conditions, including cancer, cardiovascular diseases (e.g. arteriosclerosis, ischaemic limbs and ischaemic myocardium), obesity,
                                                                                                                                                                                                                                                                                                                                                                                      The present invention specifically describes peptide derivatives comprising an angiogenic homology region (AHR) of endostatin. The derivatives can be used for modulating angiogenesis in humans and
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Fig 3; 62pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New angiogenic peptide derivatives, used for treating e.g. cancer, cardiovascular diseases, obesity, osteoarthritis, duodenal ulcers, abnormal neovascularisation and for wound healing
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                                      vessels (a potential alternative to by pass surgery or angioplasty). The multivalent ligands may be used in human or veterinary medicine. They may also be used raise peptide-specific antibodies (used for detecting the peptides) and to identify and isolate compounds that interact with, and modulate activity of, ARR. AHR are relatively small, conserved sequences from different angiogenic peptides that are (largely) responsible for biological activity. They are cheaper to prepare than complete proteins; may be effective at lower doses; have long-lasting in vivo effect and good biodistribution following oral or parenteral administration. The present sequence represents a multivalent ligand hybrid peptide given in the present invention.
                                                                                                                                                                                                                                                                                                                    The present invention specifically describes peptides comprising the angiogenic homology region (AHR) of thrombospondin (TSP) 4, angiostate endostatin or TSP-1. Multivalent ligands based on the peptides and related angiogenic peptides may be anti-angiogenic, e.g. for treating tumours, cardiovascular disease (arteriosclerosis, ischaemia), obesit osteoarthritis, duodenal ulcers, abnormal ocular vascularisation in diabetes, or they are proangiogenic, e.g. for promotion of wound healing and to stimulate neovascularisation around occluded blood healing and to stimulate neovascularisation around occluded blood
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                                                                                                                                                                                                                                                                                                                                                                                    The present invention specifically describes peptides comprising the angiogenic homology region (AHR) of thrombospondin (TSP) 4, angiostatic endostatin or TSP-1. Multivalent ligands based on the peptides and related angiogenic peptides may be anti-angiogenic, e.g. for treating tumours, cardiovascular disease (arteriosclerosis, ischaemia), obesit osteoarthritis, duodenal ulcers, abnormal ocular vascularisation in diabetes, or they are proangiogenic, e.g. for promotion of wound healing and to stimulate neovascularisation around occluded blood the promotion of the promotion of wound healing and to stimulate neovascularisation around occluded blood
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 12; Fig 2; 76pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New peptides and derived multivalent ligands based on angiogenic homology regions, used to inhibit or promote angiogenesis, e.g. for treating tumours -
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                                                                                                                                                           Sequence
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 17
                                                                                      28.3%;
                                                                    Score 32; DB Pred. No. 90; 5; Mismatches
                                                                                                       20;
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RESULT Y43404

23

20-DEC-1999

(first entry)

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RESULT
Y43408
ID Y4
XX
XX
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DT 20
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                                                                                                                                                                                                                         Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New angiogenic peptide derivatives, used for treating e.g. cancer, cardiovascular diseases, obesity, osteoarthritis, duodenal ulcers, abnormal neovascularisation and for wound healing
                               Y43408;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     diabetes mellitus; blood vessel occlusion.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Anglogenic homology region; AHR; thrombospondin 1; TSP-1; anglostatin; endostatin; anticancer; antianglogenic; cancer; cardiovascular disease; obesity; osteoarthitis; duodenal ulcer; abnormal neovascularisation; wound healing; arteriosclerosis; ischaemic limb; ischaemic myocardium;
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                                                               Y43408 standard;
                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1999-591075/50
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4 wrlshrpkdlysiv 17
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                                                             peptide;
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Best Local S
Matches 5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New angiogenic peptide derivatives, used for treating cardiovascular diseases, obesity, osteoarthritis, duo abnormal neovascularisation and for wound healing -
                                               Multivalent ligand Tip-17.40 peptide derivative
                                                                                                                                                   Y42239 standard; peptide; 23 AA
                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1999-591075/50.
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                                                                                   20-DEC-1999
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Angiogenic homology region; AHR; thrombospondin 1; TSP-1; angiostatin; endostatin; anticancer; antiangiogenic; cancer; cardiovascular disease;

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Search completed: February Job time: 625 sec

5 2001,

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Query Match
Best Local Similarity
5; Conserve
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               obesity; osteoarthritis; duodenal ulcer; abnormal neovascularisation; wound healing; arteriosclerosis; ischaemia; diabetes mellitus; blood vessel occlusion.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention specifically describes peptides comprising the angiogenic homology region (AHR) of thrombospondin (TSP) 4, angiostati endostatin or TSP-1. Multivalent ligands based on the peptides and related angiogenic peptides may be anti-angiogenic, e.g. for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 12; Fig 2; 76pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         administration. The present sequence represents \tilde{a} multivalent ligand peptide derivative given in the present invention.
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                                                                                           2 WELADQPQNLEEIL 15
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OM protein - protein search, using sw model

Run on: February 5, 2001, 10:49:28; Search time 58.67 Seconds (without alignments) 23.147 Million cell updates/sec

Title: Perfect score: Sequence: US-08-981-824-3 113 1 NWELADOPONLEEILMHCQT 20

Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched: 195891 seqs, 67900655 residues

Total number of hits satisfying chosen parameters:

5001

Minimum DB seq length: 0
Maximum DB seq length: 25

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : PIR_66:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

20 20 20 20 20 20 20 20 20 20 20 20 20 2	Result No.
23 24 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25	Score
27. 4 23. 9 23. 9 22. 1 22. 1 22. 1 21. 2 21. 2 21. 2 21. 2 21. 2 21. 2 21. 2 21. 2 21. 2 21. 2 20. 4 20. 4	ery
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clostripain (EC 3. DNA polymerase – y	interferon-alpha L vitronectin - dog Glutelin 7.3/31K -	probable nitrate r glutathione transf cystic fibrosis tr	ribosomal protein collagen alpha 1(I L-ascorbate peroxi	dihydrofolate redu spot 42 protein - hypothetical prote antigen (clone PV1 hemocyanin chain I

ALIGNMENTS

Qy 10 NLEEILMH 17 Db 6 NFEELLIH 13 RESULT 2	Query Match 27.4%; Score 31; DB 2; Length 17; Best Local Similarity 62.5%; Pred. No. 1.1e+02; Matches 5; Conservative 2; Mismatches 1; Indels 0; Gaps 0;	RESULT 1 phage antigenic determinant (clone pOA79) - phage phi-197 (fragment) C;Species: phage phi-197 C;Date: 13-Aug-1997 #sequence_revision 19-Dec-1997 #text_change 19-Dec-1997 C;Caccession: B48943 R;Schouler, C.; Bouet, C.; Ritzenthaler, P.; Drouet, X.; Mata, M. A;Pil. Environ. Microbiol. 58, 2479-2484, 1992 A;Title: Characterization of Lactococcus lactis phage antigens. A;Reference number: A48943; MUID:92384563 A;Contents: Lactococcus lactis A;Recession: B48943 A;Contents: Lactococcus lactis A;Contents: Lactococcus la
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urease (BC 3.5.1.5) small chain UreA - Helicobacter mustelae (ATCC 43772) (fragment) C;Species: Helicobacter mustelae C;Species: Helicobacter mustelae C;C;Decies: Helicobacter mustelae C;C;Dete: 19-Dec-1993 #sequence_revision 25-Apr-1997 #text_change 30-May-1997 C;Accession: F49215 F.;Turbett, G.R.; Hoj, P.B.; Horne, R.; Mee, B.J. Infect. Immun. 60, 5259-5266, 1992 A;Title: Purification and characterization of the urease enzymes of Helicobacter spec A;Accession: F49215; MUID:93084378 A;Accession: F49215; MUID:93084378 A;Accession: F49215 A;Urease in F49215 A;Status: preliminary A;Molecule type: protein A;Residues: 1-18 <TUR>A;Note: sequence extracted from NCBI backbone (NCBIP:119487) C;Superfamily: urease 26K chain; urease 11K chain homology; urease 12K chain homology C;Keywords: hydrolase

Query Match
Best Local Similarity 30.0
Matches 3; Conservative 24.8%; 6 Score 28; DB 2; Le Pred. No. 3.6e+02; 6; Mismatches 1; Length 18; Indels 0; Gaps 0

á 8 PQNLEEILMH 17

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aminoglycoside phosphotransferase - Bacillus circulans (fragment)
C;Species: Bacillus circulans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 0
C;Accession: T17886
R;Aubert-Pivert, E.; Davies, J.
Gene 147, 1-11, 1994
                                                                                                                                                Gene 147, 1-11, 1994
A;Title: Biosynthesis of butirosin in Bacillus circulans NRRL B3312: identification by A;Reference number: Z18808; MUID:94374689
A;Accession: T17886
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A;Title: Isolation of CF(0)CF(1) from Chlamydomonas reinhardtil cwl5 and the N-terminal A;Reference number: S68388; MUID:96128220
A;Accession: S68391
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 H+transporting ATP synthase (EC 3.6.1.34) delta chain, chloroplast - Chlamydomonas reli
N;Alternate names: ATP synthase delta chain
C;Species: Chlamydomonas reinhardtii
C;Date: 04-Dec-1997 #sequence_revision 12-Dec-1997 #text_change 17-Mar-1999
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                                           A; Residues:
                                                                          A; Molecule type: DNA
                                                                                                         A; Status: preliminary; translated
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A;Residues: 1-24 <FIE>
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A; Residues: 1-18 < VAN>
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A; Accession: S10452
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       ;Cross-references:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Superfamily: H+-transporting ATP synthase delta chain; Keywords: ATP biosynthesis; chloroplast; hydrolase; membrane-associated complex;
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Best Local 9
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Best Local
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nes 6; Conserv
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|ELADEKGKLE 24
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EMBL:L20421; NID:g304142; PID:g688437; PIDN:AAA62589.1
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Pred. No.
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Pred. No. 5.2e+02;
3; Mismatches 4
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. 7.1e+02;
3;
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C; Superfamil
C; Keywords:
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A;Gene: apha/butA
C;Function:
A;Pathway: butirosin biosynthesis
C;Superfamily: kanamycin kinase
                  Query Match
Best Local Similarity
Watches 5; Conserve
                                                                                                                                                                                                                                        R;Hofer, B.; Eltis, L.D.; Dowling, D.N.; Timmis, K.N. Gene 130, 47-55, 1993
A;Title: Genetic analysis of a Pseudomonas locus encoding a pathway for biphenyl/poly A;Reference number: PN0632; MUID:93345822
A;Accession: PN0632
                                                                                                                                                                                                                                                                                                                             C;Species: Pseudomonas sp.
C;Date: 10-Mar-1994 #sequence_revision 10-Mar-1994 #text_change 12-Apr-1995
C;Accession: PN0632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Superfamily: insulin F;6-11/Disulfide bonds: #status predicted F;7/Disulfide bonds: interchain (to chain B-10) #status predicted F;7/Disulfide bonds: interchain (to chain B-22) #status predicted F;20/Disulfide bonds: interchain (to chain B-22)
                                                                                                                                                                                                       A; Molecule type: DNA
A; Residues: 1-25 < HOF>
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C;Accession: JT0410
                                                                                                                                                         A;Gene: bphA4
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                                                                                                                     Superfamily: toluene dioxygenase ferredoxin reductase component 
Keywords: oxidoreductase; PCB biodegradation
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nes 5; Conserv
3 ELADÓPONLEEIL 15
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Pred. No.
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Pred. No. 1.2e
3; Mismatches
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No. 1.3e+03;
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1.2e+03;
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QLQDVGSNLRDLL 20

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R:Itoh, H.; Toyoshima, I.; Mizunuma, H.; Köbayashi, R.; Tashima, Y.
Arch. Biochem. Biophys. 282, 290-296, 1990
A:Title: Three-step purification method and characterization of the bovine brain
A:Reference number: S13268; MUID:91053144
A:Accession: S13268; MUID:91053144
A:Accession: S13268
A:Molecule type: protein
A:Residues: 1-23 <ITO>
A:Residues: 1-23 <ITO>
A:Experimental source: brain
C:Superimental source: brain
C:Superimental source: brain
C:Superimental source: brain
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A;A;Ccession: S21127
A;Status
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A;Experimental source: T lymphocyte
C;Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Title: T cell receptor genes in a series of class I major histocompatibility allell exclusion and antigen-specific repertoire.
A;Reference number: PH0746; MUID:92078846
A;Accession: PH0793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R;Casanova, J.L.; Romero, P.; Widmann, C.; Kourilsky, P.; Maryanski, J.L. J. Exp. Med. 174, 1371–1383, 1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  T-cell receptor alpha chain (H2 V-alpha-7.2) - mouse (fragment) C;Species: Mus musculus (house mouse) C;Decies: Mus musculus (house mouse) C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997 C;Accession: PH0793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Roessner, C.A.; Warren, FEBS Lett. 301, 73-78, 19 A;Title: Expression of 9
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FEBS Lett. 301,
                                                                                                                                                                                                                                                                              heat shock protein, 90K - bovine (fragment)
C:Species: Bos primigenius taurus (cattle)
C:Date: 19-Mar-1997 #sequence_revision 10-Oct-1997
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A; Residues: 1-19 < CAS>
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A; Residues: 1-11
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Matches 4
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4; Conservative
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4; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21.2%;
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21.2%;
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Pred. No. 8.9e+02;
1; Mismatches 1;
Score
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DB 2;
2e+03;
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alpha-2-macroglobulin - Atlantic horseshoe crab (fragments)
C; Species: Limulus polyphemus (Atlantic horseshoe crab)
C; Date: 19-Mar-1998 #sequence_revision 17-Apr-1998 #text_ch
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C; Keywords:
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A;Title: Chemical characterization of biodegradative
A;Reference number: A90645; MUID:83023208
A;Accession: B22317
                                                                                                                                                                                                                                                                                                                                                                                                                                                    threonine dehydratase (EC 4.2.1.16) - Salmonella typhimurium (fragment) C;Species: Salmonella typhimurium C;Date: 05-Jun-1987 #sequence_revision 05-Jun-1987 #text_change 22-Nov-
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R; Kim, S.S.; Datta, P.
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A; Gene: clpP
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A;Residues: 1-24 <HUE>
A;Cross-references: EMBL:x89562; NID:g899304;
A;Note: the nucleotide sequence was submitted
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Pred. No. 2.1e+03
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Library, July 1995
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C; Date: C; Accession: Al2872
C; Accession: Al2872
R; Sun, S.C.; Joris, L.; Tsolas, O.
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S66198
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R;Dolmer, K.; Husted, L.B.; Armstrong, P.B.; Sottrup-Jensen, L.
FEBS Lett. 393, 37-40, 1996
A;Title: Localisation of the major reactive lysine residue involved A;Reference number: S71387; MUID:96397525
A;Accession: S71387
                                                                                                                                                                            A;Residues: 1-9 <SUN>
C;Keywords: transferase
                                                                                                                                                                                                                               Arch. Biochem. Biophys. 178, 69-78, 1977 A;Title: Purification and crystallization A;Reference number: A12872; MUID:77110646 A;Accession: A12872
                                                                                                                                                                                                                                                                                                                                    transaldolase (EC 2.2.1.2) I - yeast (Pichia jadinii) (fragment)
C; Species: Pichia jadinii, Candida utilis
C; Date: 05-Jun-1987 #sequence_revision 05-Jun-1987 #text_change 30-Sep-1993
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A;Residues: 1-17 <HJE>
A;Residues: 1-10 <HJE>
C;Superfamily: alcohol dehydrogenase; long-chain alcohol dehydrogenase homology
C;Keywords: alcohol metabolism; NAD; oxidoreductase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Species: Pisum sativum (garden pea)
C;Date: 14-Feb-1997 #sequence_revision 29-Aug-1997 #text_change 12-Jun-1998
C;Accession: S66198
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A;Molecule: type: protein
A;Residus: 1-13;14-25 < POL>
C;Keywords: dimer; disulfide bond; proteinase inhibitor
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FEBS Lett. 367, 237-240, 1995
A;Title: Multiplicity of N-terminal structures
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A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-14 <EZQ>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCR delta chain V-D-J region - mouse (fragment)
C:Species: Mus musculus (house mouse)
C:Date: 21-Jan-1994 #sequence_revision 18-Nov-1994 #text_change 05-Nov-1999
C:Date: 21-Jan-1994 #sequence_revision 18-Nov-1994 #text_change 05-Nov-1999
C:Accession: F49037
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F49037
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                                                                                                                   A; Residues: 1-15 < KAM>
                                                                                                                                                                                                  R; Kamo, M.; Kawakami, T.; Miya
submitted to JIPID, July 1994
A; Description: Separation and
                                                                                                                                                                                                                                                           protein QA100028 - Arabidopsis thaliana (fragment) C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 30-Jun 1992 #sequence_revision 06-Jan-1995 C;Accession: PA0020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references: GB:S90654; NID:g246298; PIDN:AAB21552.1; PID:g246299 A;Experimental source: dendritic epidermal T-cell lines A;Note: sequence extracted from NCBI backbone (NCBIN:90654, NCBIP:90666)
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A;Residues: 1-9 <TSO>
C;Keywords: transferase
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                                                                                                       A; Experimental source: callus
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3; Conser
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                                                                                                                                                                                                                                           T.; Miyatake, N.; Tsugita,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      D.B.; McConnell, T.J.; Sturmhofel, K.; Valas, R.B.; Shevach,
                      20.4%;
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da utilis
Score 23; DB 2; Lo
Pred. No. 1.8e+03;
1; Mismatches 2;
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Pred. No.
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No. 1.7e+03;
h. No. 1.7e+03;
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05-Jun-1987 #text_change 30-Sep-1993
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2e+05;
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    Molecular characterization of th

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                                         Length 15;
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C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 07-May-1999
C;Accession: PNUL49
R;Odintsova, T.I.; Egorov, T.A.
Biokhimita 55, 509-516, 1990
Biokhimita 55, 509-516, 1990
                                                A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-20 <TER>
                                                                                                                  R;Terras, F.R.; Schoofs, H.M.; De Bolle, M.F.; Van Leuven, F.; Rees, S.B.; Vanderleyden, J. Blol. Chem. 267, 15301-15309, 1932
A;Title: Analysis of two novel classes of plant antifungal proteins from radish (Raphanu A;Reference number: A42842; MUID:92348373
A;Accession: D42842
                                                                                                                                                                                                                                 antifungal 25 storage albumin large chain - radish (fragment)
C;Species: Raphanus sativus (radish)
C;Date: 27-Apr-1993 #sequence_revision 18-Nov-1994 #text_change 12-Apr-1995
C;Accession: D42842
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A;Accession: PN0149
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A;Residues: 1-15 <DURA
A;Cross-references: EMBL:228344; NID:g607122; PIDN:CAA82198.1; PID:g607123
C;Keywords: T-cell receptor
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A; Accession: S51735
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R; Durinovic-Bello, 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;Species: Homo sapiens (man);Date: 07-May 1995 #sequence_revision 01-Sep-1995 #text_change 05-Nov-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 20.4%;
Best Local Similarity 57.1%;
Matches 4; Conservative
                        Experimental source: seed
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les 4; Conserv
  sequence extracted
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    Aegilops longissima (fragment)

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100.0%; Pred. No.
tive 0; Mismatch
  from NCBI backbone (NCBIP:109925)
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Pred. No. 1.8e+03;
2; Mismatches 1
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A; Description: A cosmid clone mapped
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R;Pei, Z.; Blaser, M.J.
J. Biol. Chem. 268, 18717-18725, 1993
A;Title: PEB1, the major cell-binding factor of Campylobacter jejuni, A;Reference number: A48518; MUID:93366784
A;Accession: D48518
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-21 <PEI>A;Cross-references: GB:L13662
                                     hypothetical protein - human (;Speckes: Homo sapiens (man) C;Speckes: Homo sapiens (man) C;Date: 08-May-1995 #sequence_revision 21-Jul-1995 #text_change 05-Nov-1999 C;Accession: $52357
                                                                                                                             RESULT 24
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R;Agryrokastritis, A.; Leversha, M.A.; Ferguson-Smith, submitted to the EMBL Data Library, March 1993
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A;Accession: S15861
A;Molecule type: protein
A;Residues: 1-20 <BIO>
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C;Datce: 04-Dec-1992 #sequence_revision 04-Dec-1992 #text_change 30-May-1997
C;Accession: S15861
R;Thble, H.H.; Jungblut, P.W.; Jakob, F.
Biochem. J. 276, 709-714, 1991
B;Title: The proton-driven dissociation of oestradiol-receptor dimers as a
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Best Local Similarity
Matches 4; Conserv
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Best Local S
Matches 4
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Best Local :
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Pred. No. 2.6e+03;
3; Mismatches 1
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Pred. No. 2.5e+03;
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Pred. No. 2.5e+03;
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                    M.; Moschonas, M.K.
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C;Species: Caenorhabditis elegans
C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 02-Jun-2000
C;Accession: T42258
R;Zeke, T.; Gergely, P.; Dombradi, V.
submitted to the EMBL Data Library, July 1996
A;Description: The Catalytic subunits of Ser/Thr protein phosphatases from Caenorhabditi
A;Reference number: Z22131
A;Accession: T42258
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Molecule type: D
Search completed: February 5, 2001, 10:49:29 Job time: 742 sec
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A;Accession: S52357
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-22 <AGR>
A;Cross-references: EMBL:X72881; NID:g667002; PIDN:CAA51393.1; PID:g667004
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Best Local Similarity 50.0%;
Matches 6; Conservative
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12 LGEQRANTEE 21
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1 QSIHLLRILMTC 12

    Mismatches

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Maximum Match 100%
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Maximum DB
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Perfect score:
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       seq length: 0 seq length: 25
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Copyright (c) 1993 - 2000 Compugen Ltd.
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OXLA_OPHHA
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RBS_PHYPA
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BOL4_MEGPE
GSHX_PINPS
COXE_ONCMY
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P11954
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3 hordeum vul
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RESULT 2
CLPP_HORVU
ID CLPP_HORVU STANDARD; PRT; 24 AA.
ID CLPP_HORVU STANDARD; PRT; 24 AA.
AC P4883;
DT 01-FEB-1996 (Rel. 33, Created)
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DT 01-NOV-1997 (Rel. 35, Last annotation update)
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8 PQNLEEILMHC 18 |: |:::: | 6 PEKLKDVKLVC 16

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                       from two enteric bacteria.";
Biochim. Biophys. Acta 706:27-35(1982).
-!- CATALYTIC ACTIVITY: L-THREONINE + H(2)0
                                                             MEDIINE-83023208; PubMed-6751404;
Kim S.S., Datta P.;
"Chemical characterization of biodegradative threonine
                                                                                                                                             Salmonella typhimurium.
Bacteria; Proteobacteria;
                                                                                                                                                                                    THREONINE D (FRAGMENT).
                                                                                                                                                                                                              01-OCT-1989 (Rel. 01-FEB-1995 (Rel.
                                                                                                                                                                                                                                      P11954;
01-OCT-1989 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE; PS00381; CLP_PROTEASE_SER; PARTIAL PROSITE; PS00382; CLP_PROTEASE_HIS; PARTIAL Hydrolase; Serine protease; Chloroplast.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and fc entities requires a license agreement (See http://www.isb-sibor send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Plant Mol. Biol. 30:109-123(1996).
-!- CATALYTIC ACTIVITY: HYDROLYSIS
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Huebschmann T., Hess
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Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;
Magnoliophyta; Liliopsida; Poales; Poaceae; Hordeum.
[1]
                                                                                                       SEQUENCE
                                                                                                                                 Salmonella.
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 COFACTOR:
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995 (Rel. 31, 1
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PYRIDOXAL PHOSPHATE
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ess W., Boerner T.;
g of the rps12 transcript in
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Last annotation update)
CATABOLIC (EC 4.2.1.16)
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PROSITE; E
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O1-AUG-1990 (Rel. 15, Last sequence updat
O1-FEB-1994 (Rel. 28, Last annotation upo
TRANSALDOLASE I (EC 2.2.1.2) (FRAGMENT).
Pichla jadinii (Yeast) (Candida utilis).
Eukaryota, Fungi, Ascomycota; Saccharomycetaceae; Pichia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PIR; B22;
STYGENE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -!- ENZYME REGULATION: EACH PROTEIN MOLECULE CAN BIND UP TO FOUR MOLECULES OF AMP, WHICH ACTS AS AN ALLOSTERIC ACTIVATOR TO THE ENZYME. THE ENZYME IS ALSO INHIBITED BY ALPHA-KETO ACIDS AND OT CATABOLITES. IT IS ALLOSTERICALLY INHIBITED BY ISOLEUCINE AND ALLOSTERICALLY ACTIVATED BY VALINE.
-!- PATHMAY: THREONINE CATABOLISM.
-!- SUBUNIT: HOMOTETRAMER.
                                                                                                                                                                                                           Arch. Biochem. Biophys. 178:69-78(1977).

-!- FUNCTION: TRANSALDOLASE IS IMPORTANT FOR THE BALANCE OF METABOLITES IN THE PENTOSE-PHOSPHATE PATHWAY.

-!- CATALITIC ACTIVITY: SEDOHEPTULOSE 7-PHOSPHATE + D-GLYCERALDEHYDE 3-PHOSPHATE - D-ERYTHROSE 4-PHOSPHATE + D-FRUCTOSE 6-PHOSPHATE.

-!- STATHWAY: NONOXYDATIVE PART OF THE PENTOSE-PHOSPHATE PATHWAY.

-!- SIMILARITY: BELONGS TO THE TRANSALDOLASE FAMILY.
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NON_TER
                                                                                                                                                                                                                                                                                                         WEDLING (Incomp. Technical Sun S.C., JORIS L., Tsolas O., Sun S.C., JORIS L., Tsolas O., "Purification of crystallization of transaldolase isozyme I "Purification of crystallization of isozymes I and III
                                                                                                                                                                                                                                                                                                    Candida utilis."
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ENE; SG10390; TDCB.
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yridoxal phosphate; Allosteric
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                                        MEDLINE-94361525; PubMed-8080286;

Ponnudural G., Chung M.C.M., Tan N.-H.;

Purification and properties of the L-amino acid oxidase f
pit viper (Calloselasma rhodostoma) venom.";

Arch. Biochem. Biophys. 313:373-378(1994).

-i- FUNCTION: HAS CYTOTOXIC ACTIVITY. THIS PROTEIN HAS A F
OF 9.0, A DETERMINED PI OF 4.4 AND IS TEMPERATURE STAL
-i- CATALYTIC ACTIVITY: A L-AMINO ACID + H(2)O + O(2) = A
NH(3) + H(2)O(2).

-i- COFACTOR: FAD.
-i- SIMILARITY: BELONGS TO THE FLAVIN MONOAMINE OXIDASE FA
STRONG, TO MOUSE FIG-1.
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TSOlas O., Sun S.C.;

TSOlasion of a peptide containing a histidiny1-cycl-
"ISOlation of a peptide containing a histidiny1-cycl-
from the active center of transaldolase.";

AITCH BIOCHEM BLOPHYS. 167:525-533(1975).

-!- FUNCTION: TRANSALDOLASE IS IMPORTANT FOR THE BALANCE OF
METABOLITES IN THE PENTOSE PHOSPHATE + D-GLYCERALDEHYDE

-!- CATALYTIC ACTIVITY: SEDOHEPTULOSE 7-PHOSPHATE + D-FRUCTOSE 6-PHOSPHATE.

-!- PATHMAY: NONOXYDATIVE PART OF THE PENTOSE-PHOSPHATE PATHMAY.

-!- PATHMAY: NONOXYDATIVE PART OF THE PENTOSE-PHOSPHATE PATHMAY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      U1-FEB-1994 (Rel. 28, Last sequence update)
TRANSALDOLASE III (EC 2.2.1.2) (FRAGMENT).
Plchia jadinii (Yeast) (Candida utilis).
Eukaryota; Fungi; Ascomycota; Saccharomycetes;
Saccharomycetaceae; Pichia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-AUG-1990
01-AUG-1990
01-FEB-1994
                                                                                                                                                                                                                                                                                                          P81382;
15-DEC-1998 (Rel. 37, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
L-AMINO ACID OXIDASE (EC 1.4.3.2) (LAO) (LAAO) (FRAGMENT).
Agkistrodon rhodostoma (Malayan pit viper) (Calloselasma rhodostom Agkistrodon Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          _AGKRH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAL3_PICJA
                Oxidoreductase; Flavoprotein; NON_TER 20 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7
                                                                                                                                                                                                                                                                                         ia; Squamata; Scleroglossa; Serpentes;
Crotalinae; Calloselasma.
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20 AA;
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2443 MW; 962660598D7F7D07 CRC64;
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1; Mismatches
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(GONADOTROPIN-RELEASING HORMONE
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P80501;
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01-FEB-1996 (Rel. 33, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation update)
UNIDENTIFIED MITOCHONDRIAL MATRIX PROTEIN (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Suzuki N., Kurita M., Yoshino K., Kajiura H., Nomura K., Yeprification and structure of mosact and its derivatives egg jelly of the sentin Clypeaster japonicus."; Zool. Sci. 4:649-656(1987).

-!- FUNCTION: STIMULATES SPERM RESPIRATION AND MOTILITY.
PIR; JN0025; JN0025.
Mitochondrion.
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Eukaryota;
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P19962;
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                                                             Plant
                                                                 of the protein complexes Plant J. 9:357-368(1996).
                                                                              MEDLINE-97077345; PubMed-8919912;
Jansch L., Kruft V., Schmitz U.K., Braun H.P.;
Jansch L., Kruft the composition, molecular mass
of the protein complexes of plant mitochondria.";
                                                                                                                                                                  SEQUENCE.
TISSUE=TUBER;
                                                                                                                                                                                                                             Solanales;
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Eukaryota; Viridiplantae; Embryophyta;
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P50559;
                                                           MEDINE-9422075; pubMed-8174557;
McDougall J., Wittmann-Liebold B.;
McDougall J., Wittmann-Liebold B.;
McDougarative analysis of the protein components
complexes of halophilic archaebacteria.";
Eur. J. Biochem. 221:779-785(1994).
-i- SIMILARITY: BELONGS TO THE L5P FAMILY OF RIB
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Archaea; Euryarchaeota;
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PFAM; PF00281; Ribosomal_L5; 1.
PROSITE; PS00358; RIBOSOMAL_L5;
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-!- SIMILARITY: BELONGS TO THE L5P FAMILY
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 RL5_HALHA
P50556;
01-OCT-1996
01-OCT-1996
30-MAY-2000
                                                                                                                                                                                                                                                                                                                                                           Cortie C., Johnson K.H., Adrian T.E., Westermark P.;
"Islet amyloid polypeptide in the rabbit and European hare: studies on its relationship to amyloidogenesis.";
Diabetologia 36:183-188(1993)
-1- FUNCTION: SELECTIVELY INHIBITS INSULIN-STIMULATED GLUCOSE UTILIZATION AND GLYCOGEN DEPOSITION IN MUSCLE, WHILE NOT AFFECTING ADJPOCYTE GLUCOSE METABOLISM.
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Ribosomal
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Eukaryota; Metazoa; Chordata; C
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15-JUL-1998 (Rel. 36, Last sequence update)
15-JUL-1998 (Rel. 36, Last annotation update)
ISLET AMYLOID POLYPEPTIDE (AMYLIN) (FRAGMENT).
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Pred. No. 2.4e
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Matches 2
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proteins.";

Electrophoresis 20:1098-1108(1999).

-!- FUNCTION: PPIASE THAT BINDS CALMODULIN
-!- CATALYTIC ACTIVITY: PEPTIIVLPROLINE (OM-
-!- PEPTIIVLPROLINE (OMEGA-0).

-- MTSCELLANEOUS: ON THE 2D-GEL THE DETERN
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NON_TER
SEQUENCE
Plomion C., Costa P., Bahrman N., Frigerio J.-M.; "Genetic analysis of needle proteins in maritime pine. dominant and codominant protein markers assayed on dip a haploid-based genetic map."; Silvae Genetica 46:161-165(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pinus pinaster (Maritime pine).
Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;
Coniferopsida; Coniferales; Pinaceae; Pinus.
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McDougall J., Wittmann-Liebold B.;
"Comparative analysis of the protein components complexes of halophilic archaebacteria.";
Eur. J. Biochem. 221:779-785(1994).
-!- SIMILARITY: BELONGS TO THE L5P FAMILY OF RIBPIR; C33084; C33084.
                                                                                                                                                                                                                                                                                                                                               MEDLINE-99274088; PubMed-10344291;
Costa P., Pionneau C., Bauw G., Dubos
Frigerio J.-M., Plomion C.;
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Archaea; Euryarchaeota;
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PROSITE; PS00358; RIBOSOMAL_L5;
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BELONGS TO THE FKBP-TYPE
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15-JUL-1998 (Rel. 36, Last sequence update)
15-JUL-1999 (Rel. 38, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
17-JUL-1999 (Rel. 38, Last annotation update)
18-JUL-1999 (Rel. 36, Last annotation update)
18-JUL-1999 (Rel. 36, Last sequence update)
18-JUL-1999 (Rel. 36, Last sequence)
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- PUNCTION: THE LIGHT-MODULATED CHLOROPLAST ENZYME,

- NUCLEAR GENE AND EXPRESSED PRIMARILY IN LEAVES, IS

THE REASSIMILATION OF THE AMMONIA GENERATED BY PHO
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MISCELLANEOUS: ON THE 2D-GEL THE DETERMINED PI OF THIS
5.7, ITS MW IS: 42 KDA.
SIMILARITY: BELONGS TO THE GLUTAMINE SYNTHETASE FAMILY
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PS00181; GLNA_ATP; PARTIAL
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Pionneau C., Bauw G:, Dubos
J.-M., Plomion C:;
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Pred. No. 2.2e+03
3; Mismatches
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LEO5_BIOGL
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01-NOV-1997
30-MAY-2000
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SEQUENCE
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MEDITINE-97385165; PubMed-9238039;

Adema C.M., Hertel L.A., Miller R.D., Loker E.S.;

"A family of fibrinogen-related proteins that precipitates
"A family of fibrinogen-related proteins that precipitates
derived molecules is produced by an invertebrate after information of the proc. Natl. Acad. Sci. U.S.A. 94:8691-869(1997).

Proc. Natl. Acad. Sci. U.S.A. 94:8691-869(1997).
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Eukaryota; Metazoa; Mollusca; Gastropoda; P
Planorbidae; Biomphalaria.
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-1- SUBCELLULAR LOCATION:
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P80907;
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e OXIDOREDUCTASE SUBUNIT VORA (EC 1.-.-.) (VOR) (2-
OXIDOREDUCTASE ALPHA CHAIN) (2-OXOISOVALERATE-
DOREDUCTASE ALPHA SUBUNIT) (FRAGMENT).
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Pred. No. 2
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H 9.7
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plic 2-oxoacid
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                                                                                           Length 16
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                                                                                                                                                                       DCAM_ACACA
P34039;
                                                                                                       01-FEB-1994 (Rel. 28, Created)
01-FEB-1994 (Rel. 28, Last sequence update)
01-FEB-1994 (Rel. 28, Last annotation update)
S-ADENOSYLMETHIONINE DECARBOXYLASE ALPHA SUBUNIT (EC 4.1.1.50)
                                                                                                                                                                                                                                                                                                                                                                                     Elongation factor;
NON_TER 1
SEQUENCE 17 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; X66322; CAA46997.1; -. PIR; S29294; S29294. HSSP; P13551; 1ELO.
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STRAIN-EP 00276;
MEDLINE-92362620; PubMed-1499561;
              Hugo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Thermus aquaticus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Voss R.H., Hartmann R.K., Lippmann C., Alexander C., Jahn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bacteria; Thermus/Deinococcus group; Thermus group; Thermus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FUSA OR FUS.
                                           SEQUENCE, AND CHARACTERIZATION
                                                                                   (ADOMETDC) (FRAGMENT).
Acanthamoeba castellanii (Amoeba)
                          MEDLINE=94029912; PubMed=8216217;
                                                                                                                                                                                                                                                                                                                                                                                                                               INTERPRO; IPRO00795; -.
ROSITE; PS00301; EFACTOR_GTP; PARTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence of the tufA gene encoding elongation factor EF-Tu from
                                                                       lukaryota; Acanthamoebidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              hermus aquaticus
                                                                                                                                                                                                                                                           σ
                                                                                                                                                                                                                                                                                      8 PONLEEILMHCQ 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBCELLULAR LOCATION: CYTOPLASMIC. SIMILARITY: BELONGS TO THE GTP-BINDING ELONGATION FACTOR FAMILY. EF-G/EF-2 SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . J. Blochem. 207:839-846(1992).
FUNCTION: THIS PROTEIN PROMOTES THE GTP-DEPENDENT TRANSLOCATION
OF THE NASCENT PROTEIN CHAIN FROM THE A-SITE TO THE P-SITE OF THE
              E.R.,
                                                                                                                                                                                                                                                            PRQIQEKLIKGQ 17
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4; Conser
             Byers
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-methionine decarboxylase of Acanthamoeba castellanii
                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                       2094 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                  Protein
                                                                                                                                                                                                                                                                                                                                17.7%;
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                                                                      Acanthamoeba.
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Pred.
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RESULT 21
ETFA_CLOPA
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Matches 3: Conservative
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P81342;
15-JUL-1998 (Rel. 3
15-JUL-1998 (Rel. 3
15-JUL-1998 (Rel. 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Spermidine biosynthesis; Lyase; Decarboxylase; Pyruvate.

MOD_RES 1 1 CONVERTED TO A PYRUVOYL GROUP.

NON_TER 19 19
SEQUENCE 19 AA; 2153 MW; 88B18AD9B6142AEF CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (Neff): purification and properties."; Biochem. J. 295:203-209(1993).
                                                                                                                                                                                                  Flengrud R., Skjeldal L.;

"Two-dimensional gel electrophoresis separation and N-terminal sequence analysis of proteins from Clostridium pasteurianum W5.";

Electrophoresis 19:802-806(1998).

-i- FUNCTION: THE ELECTRON TRANSFER FLAVOPROTEIN SERVES AS A SPECIFIC ELECTRON ACCEPTOR FOR OTHER DEHYDROGENASES. IT TRANSFERS THE ELECTRONS TO THE MAIN RESPIRATORY CHAIN VIA ETF-UBIQUINONE OXIDOREDUCTASE (ETF DEHYDROGENASE) (BY SIMILARITY).

-i- COFACTOR: CONTAINS ONE MOLECULE OF FAD PER DIMER (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15-JUL-1998 (Rel. 36, Created)
15-JUL-1998 (Rel. 36, Last sequence update)
15-JUL-1998 (Rel. 36, Last annotation update)
15-JUL-1998 (Rel. 36, Last annotation update)
ELECTRON TRANSFER FLAVOPROTEIN ALPHA-SUBUNIT (ALPHA-ETF)
TRANSFER FLAVOPROTEIN LARGE SUBUNIT) (ETFLS) (CP 14) (FRA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -i- SIMILARITY: BELONGS TO THE ADOME INTERPRO; IPRO01985; -. PARTIAL. PROSITE; PS01336; ADOMETEC; PARTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (3-AMINOPROPYL) METHYLSULFONIUM SALT + CO(2).

-1- COFACTOR: REQUIRES A PYROPOYL GROUP FOR ITS ACTIVITY.

-1- PATHMAY: DECARBOXYLATION OF S-ADENOSYLMETHIONINE PROVIDE
AMINOPROPYL MOIETY REQUIRED FOR SPERMIDINE AND SPERMINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Clostridium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Clostridium pasteurianum.
Bacteria; Firmicutes; Bacillus/Clostridium
                                                                                                             Electron transport; Flavoprotein; FAD.
                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN-W5;
                                                                                                                                                  PROSITE;
                                                                                                                                                                     INTERPRO;
                                                                                                                                                                                     -1- SIMILARITY: BELONGS TO THE ETF ALPHA-SUBUNIT / FIXB FAMILY
                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE-98291870; PubMed-9629918;
                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
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les 5; Conservative
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SCHBUNIT: HETEROTETRAMER OF TWO ALPHA AND TWO BETA CHAINS...

DEVELOPMENTAL STAGE: EXPRESSED ONLY DURING EXPONENTIAL GROWTH.

DEVELOPMENTAL STAGE: EXPRESSED ONLY DURING EXPONENTIAL GROWTH.

INDUCTION: STIMULATED BY PUTRESCINE. INHIBITED BY AROMATIC

DIAMIDINES BERENIL, PENTAMIDINE, PROPAMIDINE, HYDROXYSTILBAMIDINE,

BY ETHIDIUM BROWLIDE AND METHYLGIXOXAL.

BY ESTHIDIUM BROWLIDE AND METHYLGIXOXAL.

SIMILARITY: BELONGS TO THE ADOMETC FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FUNCTION: S-ADENOSYLMETHIONINE DECARBOXYLASE IS ESSENTIAL FOR THE BLOSYNTHESIS OF SPERMINE AND SPERMIDINE. THE ALPHA SUBUNIT CONTAINS THE ACTIVE SITE.

CATALYTIC ACTIVITY: S-ADENOSYLMETHIONINE = (5-DEOXY-5-ADENOSYL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NTKLILKTCGT
                                                                                                                                              PS00696; ETF_ALPHA; PARTIAL.
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                 17.7%;
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45.5%;
                                                                                            , WM
Score 20; DB Pred. No. 2.8e 1; Mismatches
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                                                                                            BB23312B28F4F0D6 CRC64
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                                        DB 1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  group; Clostridiaceae;
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                                    Length 19;
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OXLA_OPHHA STANDARD; PRT; 19 AA.

ID OXLA_OPHHA STANDARD; PRT; 19 AA.

AC P8138;
DT 15-JUL-1999 (Rel. 37, Created)
DT 15-JUL-1999 (Rel. 38, Last sequence update)
CC Lepidosauria; Scleroglossa; Serpentes; Colubroidea;
RN 150UE-VENOM;
RN 150UE-VENOM;
RN 250UENCE GF 1-15.
RN 250UENCE OF 1-15.
RN 270 (Rel. 38, Kim Y. S.;
RN 250UENCE OF 1-15.
RN 271 (Rel. 38, Last sequence update)
RN 272 (Rel. 38, Last sequence update)
RN 273 (Rel. 38, Last sequence update)
RN 274 (Rel. 38, Last sequence update)
RN 274 (Rel. 38, Last sequence update)
RN 275 (Rel
RESULT 23
DFTS_RAT
ID DFTS_RAT
AC P07448;
DT 01-APR-1988 (
DT 01-MAR-1989 (
DT 01-MAR-1989 (
DT DEPTIDE)
DE PEPTIDE)
OS Rattus norveg
OC Eukaryota; Me
OC Mammalia; Eut
RN [1]
RX MEDLINE-97131
RA Yamamoto T.,
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01-APR-1988 (Rel. 07, Last sequence up
01-MAR-1989 (Rel. 10, Last annotation
DENTINAL FLUID TRANSPORT-STIMULATING F
                                                                                                                                       Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                              TISSUE=PAROTID GLAND;
MEDLINE-87131231; Pub
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1111
4 NLEE 7
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4; Conservative
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                                 PubMed-3815601;
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        Kobayashi M.,
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Sciurognathi;
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on update)
G PEPTIDE (DFT-STIMULATING
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thi; Muridae;
     Yamamoto
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; Murinae; Rattus
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                                                            RAN_XENLA
P52301;
01-OCT-1996
01-OCT-1996
01-OCT-1996
GTP-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Identification of photosystem I components from the cyanobacterium, Synechococcus videnus by N-terminal sequencing."; FEBS Lett. 253:257-263(1989).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "The movement of Acriflavine hydrochloride through molars of rats on a carlogenic and non-carlogenic diet.";
J. South. Calif. Dent. Assoc. 35:151-157(1967).
-i- FUNCTION: THIS PEPTIDE STIMULATES THE TRANSPORT OF DENTINAL FLUID, WHICH IS IMPORTANT FOR THE PREVENTION OF DENTAL CARIES.
PIR; JJ0001; DIRT.
Dental carles; Parotid gland; Hormone.
SEQUENCE 20 AA; 2165 MW; FA164F2B6AF80D5A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P25937:
01-MAY-1992 (Rel. 22, Created)
01-MAY-1992 (Rel. 22, Last sequence update)
01-JUN-1994 (Rel. 29, Last annotation update)
PHOTOSYSTEM I REACTION CENTRE SUBUNIT XI (F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -!- SUBCELLULAR LOCATION: 1
-!- SIMILARITY: BELONGS TO PIR; S05220; S05220.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Isolation and amino acid sequence of dentinal stimulating peptide from rat parotid glands."; Chem. Pharm. Bull. 34:3803-3811(1986).
Eukaryota;
Xenopus laevis (African clawed
Eukaryota; Metazoa; Chordata; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Photosystem I; Photosynthesis; Transmembrane NON_TER 20 20
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MEDLINE=67131708; PubMed=5297832;
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NUCLEAR PROTEIN RAN (TC4) (FRAG
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TISSUE-OVARY;
TISSUE-Y4019818; PubMed-8413630;
MOORE M.S., Blobel G.;
"The GTP-binding protein Ran/TC4 is required for protein import into the nucleus.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
Xenopodinae; Xenopus.
[1]
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PROSITE; PS01115; RAN; PARTIAL.

GTP-binding; Nuclear protein; Protein transport.
                                                                                                                                                                                                                                                                                                        NATURE 363:661-663(1993).

NATURE 365:661-663(1993).

TRANSPORT. REQUIRED FOR THE IMPORT OF PROTEIN INTO THE NUCLEUS AND ALSO FOR RNA EXPORT. INVOLVED IN CHROMATIN CONDENSATION AND CONTROL OF CELL CYCLE (BY SIMILARITY).

-!- SUBCELLULAR LOCATION: NUCLEAR.
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09uqb1 homo sapien
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salmonella	Q9r899 chlamydia t		Q9twm1 lytechinus	Q9ucc3 homo sapien	Q56354 paracoccus	Q9uwh2 thermococcu			Q26159 plasmodium	Q46963 escherichia	Q9s8h6 glycine max	Q94373 caenorhabdi	Q16476 homo sapien	Q9kk60 mycobacteri	Q52009 pseudomonas	Q9ucl6 homo sapien	Q9s8y7 raphanus sa	Q9k4x0 planktothri	P82331 pisum sativ	sus s	OMO	OMO	Bum	homo	Q30218 homo sapien	

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MEDLINE-92271245; PubMed-1589796;

MEDLINE-92271245; PubMed-1589796;

Ou C.Y., Clestelski C.A., Myers G., Bandea C.I., Luo C.C.,

Korber B.T.M., Mullins J.I., Schochetman G., Berkelman R.L.,

Economou A.N., Witte J.J., Furman L.J., Satten G.A., MacInnes K.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
Zhang L.Q., Leigh-Brown A.J.;
Thang L.Q., Leigh-Brown A.J.;
Thang L.Q., Leigh-Brown A.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Curran J.W., Jaffe H.W.;
"Molecular epidemiology of HIV transmission in a dental practice.";
Science 256:1165-1171(1992).
EMBL; M92122; AAA44492.1;
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NCBI_TaxID-11676;
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Viruses; Retroid viruses; Retroviridae; Lentivirus
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
PROFILIN-BINDING CORTICAL COMPLEX-18 KDA POLYPEPTIDE.
Acanthamoeba castellanii (Amoeba).
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actins from Acanthamoeba
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Acanthamoebidae; Acanthamoeba.
NCBI_TaxID=5755;
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Coniferopsida; Coniferales;
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CT-2000 (TIEMBLrel. 15, Last sequence update)
CT-2000 (TIEMBLrel. 15, Last annotation update)
DEHYDROGENASE SUBUNIT 1 (FRAGMENT).
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5; Conservative
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AA; 1875 MW; 7260445CDF5AE78B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Atkinson
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s; Pinaceae;
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Last seq
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2; Mismatches
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                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ampe C., Vandekerckhove J.,
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   sequence update)
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1.5e+02;
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4.6e+02;
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"Calcium-dependent secretory vesicle-binding
proteins of Saccharomyces cerevisiae.";
Yeast 7:229-244(1991).
SEQUENCE 20 AA; 2388 MW; 594377CBC3E72B0E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-95020803; PubMed-7935068; Yokota K., Hirai Y., Haque M., Hayashi S., Is Yokota K., Hirai Y., Haque M., Hayashi S., Is Nagamachi E., Tsukada Y., Fujii N., Oguma K.; "Heat shock protein produced by Helicobacter Microbiol. Immunol. 38:403-405(1994). INTERPRO; IPR002026; -. PFAM; PF00547; urease_gamma; 1. PFAM; PF00547; urease_gamma; 1.
SEQUENCE FROM N.A.
MEDLINE-89067912; PubMed-2848926;
Stamps A.C., Campo M.S.;
                                                                                                                              Bovine papillomavirus. Viruses; dsDNA viruses, NCBI_TaxID=10571;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Saccharomyces cerevisiae (Baker's yeast). Eukaryota; Fungi; Ascomycota; Saccharomycetes;
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30 KNA MAJOR HEAT SHOCK PROTEIN (FRAGMENT).
Helicobacter pylori (Campylobacter pylori).
Bacteria; Proteobacteria; epsilon subdivision;
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29C9DFBFD6D21805 CRC64;
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"Mapping of two novel transcripts J. Gen. Virol. 69:3033-3045(1988). EMBL; M35264; AAA46926.1; -. NON_TER 1 1 1. NON_TER 22 22

of bovine papillomavirus type 4. ";

SEQUENCE

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Turbett G.R., Hoj P.B., Horne R., Mee B.J.;
The licobacter species from humans and animals.";
Infect. Immun. 60:5259-5266(1992).
Infect. Immun. 60:5259-5266(1992).
THORNE 18 AA; 2060 MW; 29C8E0AB77E21805 CRC64;
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                    SEQUENCE FROM N.A.

MEDLINE-88299404; PubMed-3041373;
Cam K., Bejar S., Gil D., Bouche J.P.;
"Identification and sequence of gene dicB: translation inhibitor from an in-phase internal start.";
Nucleic Acids Res. 16:6327-6338(1988).
[3]
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Fiedler H.R., Schmid R., Leu S., Shavit N., Strotmann H.;
"Isolation of CFOCF1 from Chlamydomonas reinhardtii cw15 (
terminal maino acid sequences of the CFOCF1 subunits.";
FEBS Lett. 377:163-166(1995).
SEQUENCE 24 AA; 2707 MW; SCCAE3310F50FB44 CRC64.
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Chlamydomonas reinhardtii.
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EMBL; X07465; CAA30350.1; -
SEQUENCE 18 AA; 2114 MW; 28B470E8012EC7A2 CRC64;
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Bejar S., Bouche F., Bouche J.P.;
Bejar Side and the state of the state of
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"Genetic evidence that DicF, a section the Escherichia coli dicB operon, Mol. Microbiol. 3:991-994(1989).
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"Control of cell division in Escherichia coland of a second gene complementing mutation nucleic Acids Res. 14:6821-6833(1986).
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Bejar S., Cam K., Bouche J.P.;
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NEDLINE-92332534; PubMed=1378438;
Lee T.G., Tomita J., Hovanessian A.G., Katze M.G.;
"Characterization and regulation of the 58,000-dalton cellular inhibitor of the interferon-induced, dsRNA-activated protein king biol. Chem. 267:14238-14243(1992).

SEQUENCE 18 AA; 2206 MW; 91778DDE6B34082D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pec Bovidae; Bovinae; Bos. NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Acanthamoeba castellanii (Amoeba).
Eukaryota; Acanthamoebidae; Acanth
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Bos taurus (Bovine).
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AA; 2115 MW; A64E248880BA06C4
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                                                                                                                                                                                                                                                                                                                      23.0%;
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Pred. No. 1.3e+03;
1; Mismatches 4
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1.5e+03
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01-MAY-2000 (TREMBLrel. 13, La
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01-JUN-2000 (TREMBLrel 14, La
ATP-DEPENDENT_20 S PROTEASOME
BOS taurus (BÖvine).
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01-MAY-2000 (TrEMBLrel. 13, Last annota
VIRULENCE PROTEIN PGP3-D (FRAGMENT).
Chlamydia trachomatis.
Bacteria; Chlamydiales; Chlamydiaceae;
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"Identification of monomeric alpha-macroglobulin proteinase ini
in birds, reptiles, amphibians and mammals, and purification ar
characterization of a monomeric alpha-macroglobulin proteinase
inhibitor from the American bullfrog Rana catesbeiana.";
Biochem. J. 290:85-95(1993).
SEQUENCE 20 AA; 2332 MW; 7CE78C52053F74D7 CRC64;
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Eukaryota; Metazoa; Chordata;
Amphibia; Batrachia; Anura; Ne
NCBI_TaxID=8400;
                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                          Q9TRB4;
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"Gene identification
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Batrachia; Anura; Neobatrachia; Ranoidea;
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23 AA; 2475 MW;
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          Bos.
                                        Chordata; Craniata; Vertebrata; Euteleostomi; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
                                     Cetartiodactyla;
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of Chlamydia
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Last annotation update)
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1.6e+03;
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1.9e+03;
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Ranidae; Rana
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                                            Bovoidea;
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Q9R4U6;
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DeMartino G.N., Moomaw C.R., Zagnitko O.P., Proske R.J., Cl
Afendis S.J., Swaffield J.C., Slaughter C.A.;
"PA700, an ATP-dependent activator of the 20 S proteasome,
ATPase containing multiple members of a nucleotide-binding
family.";
Biol. Chem. 269:20878-20884(1994).
SEQUENCE 16 AA; 1878 MW; F70F74211EE26EDE CRC64;
MEDLINE-93267778; PubMed-8388499;
Rumenapf T., Unger G., Strauss J.H., Thiel H.J.;
"Processing of the envelope glycoproteins of pestiviruses.";
J. Virol. 67:3288-3294(1993).
SEQUENCE 24 AA; 2752 MW; A48D322C89550658 CRC64;
                                                                                                                            01-MAY-2000 (TIEMBLIEL 13,
01-MAY-2000 (TIEMBLIEL 13,
01-MAY-2000 (TIEMBLIEL 13,
GLYCOPROTEIN EO (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                    "Identification and purification of a protein that ind of the Lactobacillus acidophilus bacteriocin lactacin Appl. Environ. Microbiol. 60:352-3528(1994). SEQUENCE 19 AA; 2171 MW; 3221F0603F19E32F CRC64;
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
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BACTERIOCIN LACTACIN B INDUCER (FRAGMENT).
                                                                                                    Hog cholera virus.
Viruses; ssRNA positive-strand
                                                          SEQUENCE
                                                                                  NCBI_TaxID=11096;
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EMBL; AB013005; BAA36574.1; -
NON_TER 25 25
NON_TER 25 25
SEQUENCE 25 AA; 2969 MW; 35494
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Q9R1G8;
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                                                                                                                                                                                                                                                                                                                                               Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
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INSULIN RECEPTOR PRECURSOR (FRAGMENT).
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Mammalia; Eutheria;
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Q30218;
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MEDLINE-98216723; PubMed-9557645;
                                                                      Forster H.H., Wasch R., Kretschmar T., Mischke I Uchanska-Ziegler B., Ziegler A., Schnitt M., Wal "Genetic markers on chromosome 19p and prenatal II-deficient combined immunodeficiency.";

Pediatr. Res. 38:812-816(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ENV.
                                                                                                                     SEQUENCE FROM N.A. MEDLINE-96124133; PubMed-8552454;
                                                                                                                                                           Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
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NCBI_TaxID=11676;
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01-MAY-2000 (TremBLrel.
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Virol. 72:3646-3657(1998).

MBL: U89854; AAC26093.1; -.
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                                     53F5D4E75F1E5F47 CRC64;
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, Wahn H.U.;
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P97918; O1-MAY-1997 (TIEMBLEGL 03,
01-MAY-1997 (TIEMBLEGL 03,
01-NOV-1999 (TIEMBLEGL 12,
                                                                                                                                                                  Chambers G.W., McKenzie I.F.C., Hogarth P.M.;
"The murine Fc receptor for immunoglobulis: purification, partial amino acid sequence, and isolation of cDNA clones.";
proc. Natl. Acad. Sci. U.S.A. 83:6980-6984(1986).
EMBL; M14277; AAA37606.1;
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Mammalia; Eutheria; Rodentia;
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

MCBI_TaxID=9606;
                                                                                                                                                                                                                                                   SEQUENCE OF 226-248 FROM N.A. MEDLINE-86313694; PubMed-2944118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nakada H., Inoue M., Numata
Mellors A., Yamashina I.;
                                                                                                                                       MGD; MGI
                                                                                                                                                                                                                                        Hibbs M.L., Walker I.D., Kirszbaum L.,
                                                                                                                                                                                                                                                                                                                                       Mus musculus (Mouse).
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2 WELADOPONLEEILMH
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29F2DD83C77FFCE2 CRC64;
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Q9TUP6;
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Q9UCG1;
Q1-MAY-2000 (TrEMBLrel. 13, Created)
Q1-MAY-2000 (TrEMBLrel. 13, Last sequence update)
Q1-JUN-2000 (TrEMBLrel. 14, Last annotation update)
PEPTIDYL-ALPHA-HYDROXYGLYCINE ALPHA-AMIDATING LYASE
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Husten E.J., Tausk F.A., Keutmann H.T., Eipper B.A.;
J. Biol. Chem. 268:9709-9717(1993).

SEQUENCE 24 AA; 2830 MW; 854634033B13A147 CRC64;
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Vox Sang. 68:121-129(1995).
EMBL; S77082; AAB34408.1; -.
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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Mammalia; Eutheria;
NCBI_TaxID=9606;
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MEDLINE-95282423; PubMed-7762218;
Dupont B.R., Grant S.G., Oto S.H., Bigbee W.L., Jensen R.H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Molecular characterization of glycophorin A transcripts in human erythroid cells using RT-PCR, allele-specific restriction, and
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Langlois R.G
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HEART FATTY ACID BINDING PROTEIN (FRAGMENT).
Sus scrofa (P19).
                                                                                                                                                                      STRAIN-PIETRAIN; TISSUE-BLOOD; Nechtelberger D., Mueller S., Mueller M.; Submitted (JUL-1999) to the EMBL/GenBank/DDBJ EMBL; AF164968; AAD47821.1; -. HSSP; P05413; 1HMT.
                                                                                                                                                                                                                                                              Eukaryota; Metazoa;
Mammalia; Eutheria;
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PFAM; PF00061; l1pocal1
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 9 WKLVDS-KNFDDYM 21
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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.

OM protein - protein search, using sw model

February 5, 2001, 10:49:29; Search time 58.67 Seconds (without alignments) 23.147 Million cell updates/sec Run on:

US-08-981-824-4 108 score: Title: Perfect

1 TLKYAIKTGHPRYFNOLSTG 20

Sequence:

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195891 segs, 67900655 residues Searched:

5001 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 25

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database

PIR_66:*
1: pir1:*
2: pir2:*
3: pir3:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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	Description	hypothetical prote	penicillin-binding	Ig heavy chain CRD	metalloendopeptida	gene HEXA protein	penicillin-binding	alpha-amylase inhi	Ig heavy chain V r	protein kinase C 1	carboxypeptidase 3	Ig heavy chain V r	Ig heavy chain CRD	gene HEXA protein	T-cell receptor be	urinary tract ston	ď	allatostatin - tob	Ig heavy chain DJ	hypothetical prote	T-cell receptor J-	T-cell receptor J-	N4-(beta-N-acetylg	T-cell receptor al	celF protein - Esc	T-cell antigen rec	antigen	T-cell receptor be	o	ribosomal protein
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ALIGNMENTS

hypothetical protein HP1528 - Helicobacter pylori (strain 26695)
C;Species: Helicobacter pylori
C;Species: Helicobacter pylori
C;Species: Helicobacter pylori
C;Date: 09-Aug-1997 #sequence_revision 09-Aug-1997 #text_change 08-Oct-1999
C;Accession: H64710
R;Tomb, J.F.; White, O.; Kerlavage, A.R.; Clayton, R.A.; Sutton, G.G.; Fleischmann, R. Peterson, S.; Loftus, B.; Richardson, D.; Dodson, R.; Khalak, H.G.; Glodek, A.; McKe son, J.D.; Kelley, J.M.; Cotton, M.D.; Weidman, J.M.; Fujli, C.; Bowman, C.; Watthey, Nature 388, 539-547, 1997
A;Authors: Wallin, E.; Hayes, W.S.; Borodovsky, M.; Karpk, P.D.; Smith, H.O.; Fraser, A;Title: The complete genome sequence of the gastric pathogen Helicobacter pylori.
A;Reference number: A64520; MUID:97394467
A;Reference number: A64520; Mulciel acid sequence not shown; translation not shown
A;Residues: 1-25 <TOM>A;Accession: H64710
A;Stesidues: 1-25 <TOM>A;Accessive: GB:AE000651; GB:AE000511; NID:92314708; PIDN:AAD08577.1; PID:9231

ö Length 25; 6; Indels Score 30; DB 2; Pred. No. 2e+02; 4; Mismatches Query Match 27.8%; Best Local Similarity 37.5%; Matches 6; Conservative

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Gaps

2 LKYAIKTGHPRYFNOL 17 ð

| | ::| | : |:| 10 LDYSLKKGLVKVINRL 25 셤

RESULT 2 A54548 penicillin-binding protein 4 - Enterococcus hirae (fragment)

Cispecies: Enterococcus hirae
Cibate: 06-0ct-1994 #sequence_revision 18-Nov-1994 #text_change 04-Dec-1994
Cibate: 06-0ct-1994 #sequence_revision 18-Nov-1994 #text_change 04-Dec-1994
Cibacession: A54548
R.Jacques, P.; el Kharroubi, A.; Van Beeumen, J.; Piras, G.; Coyette, J.; Ghuysen, J.
FEMS Microbiol. Lett. 66, 119-123, 1991
A;Title: Mode of membrane insertion and sequence of a 32-amino acid peptide stretch o A; Reference number: A54548; MUID:92038914
A; Reference number: A54548
A; Accession: A54548
A; Molecule type: protein
A; Residues: 1-24 < AAC>
A; Note: sequence extracted from NCBI backbone (NCBIP:63855)

Gaps ö Length 24; 10; Indels 26.9%; Score 29; DB 2; I 40.0%; Pred. No. 2.8e+02; tive 2; Mismatches 10; Conservative Query Match Best Local Similarity Matches 8; Conserv

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1 TLKYAIKTGHPRYFNQLSTG 20

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Gaps

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alpha-amylase inhibitor - rye
C;Species: Secale cereale (rye)
C;Date: 07-May-1995 #sequence_revision 03-Nov-1995 #text_change 17-Mar-1999
C;Accession: $48156
R;Garcia-Casado, G.; Sanchez-Monge, R.; Lopez-Otin, C.; Salcedo, G.
Eur. J. Biochem. 224, 525-531, 1994
A;Titler. Rye inhibitors of animal alpha-amylases show different specifities, aggregat A;Accession: $48156; MUID:95010030
                                                                                                                                                                                                                                                                                                                                                                                             C;Species: Enterococus hirae
C;Date: 06-Oct-1994 #sequence_revision 18-Nov-1994 #text_change 04-Dec-1994
C;Accession: B54548
R;Jacques, P.; el Kharroubi, A.; Van Beeumen, J.; Piras, G.; Coyette, J.; Ghuysen, J.
FEMS Microbiol. Lett. 66, 119-123, 1991
A;Title: Mode of membrane insertion and sequence of a 32-amino acid peptide stretch o
A;Reference number: A54548; MUID:92038914
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C;Species: Mus musculus (house mouse)
C;Date: 24 = Feb-1994 #sequence_revision 24-Feb-1994 #text_change 17-Mar-1999
C;Accession: PHI728
E;McHeyzer-Williams, M.G.; McLean, M.J.; Lalor, P.A.; Nossal, G.J.V.
J. Exp. Med. 178, 295-307, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 23;
                                                                             Length 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 28; DB 2; Length 25;
Pred. No. 4.3e+02;
L; Mismatches 5; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1; Indels
                                                                                                                                                                                                                                                                                                                                                                          penicillin-binding protein 4 - Enterococcus hirae (fragment)
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5.7e+02;
                                                                          Score 28; DB 2;
Pred. No. 4.3e+02;
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Pred. No. 5.7e+
0; Mismatches
                                                                                                                               2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-23 <GAR>
C;Superfamily: wheat alpha-amylase inhibitor
C;Keywords: alpha-amylase inhibitor
C; Superfamily: beta-hexosaminidase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25.9%;
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ilarity 80.0%;
Conservative (
                                                                          25.9%;
50.0%;
                                                                             Query Match 25.9
Best Local Similarity 50.0
Matches 5; Conservative
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A;Molecule type: protein
A;Residues: 1-25 <JAC>
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Best Local Similarity
Matches 4; Conserv
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Best Local Similarity
Matches 6; Conserv
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Cispecies: Homo sapiens (man)
Cibate: 29-May-1998 #sequence_revision 29-May-1998 #text_change 21-Jul-2000
Cispecies: 29-May-1998 #sequence_revision 29-May-1998 #text_change 21-Jul-2000
Cispecies: D.J.; Proia, R.L.
Riboles, D.J.; Proia, R.L.
Airitle: The molecular basis of HEXA mRNA deficiency caused by the most common Tay-Sachs
Airitle: The molecular basis of HEXA mRNA deficiency caused by the most common Tay-Sachs
Aireference number: 151882; MUID:95193801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            metalloendopeptidase (EC 3.4.24.-) - Streptomyces griseus (fragment)
C;Species: Streptomyces griseus
C;Species: 31-Dec-1991 #sequence_revision 31-Dec-1991 #text_change 28-May-1993
C;Accession: PQ0215
R;TSUVIKI, H.; Kajiwara, K.; Fujita, A.; Kumazaki, T.; Ishii, S.
J. Biochem. 110, 339-344, 1991
A;Title: Purification and characterization of Streptomyces griseus metalloendopeptidases
A;Reference number: PQ0215; MUID:92121147
                                                                                                                            ig heavy chain CRD3 region (clone 2-115C) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C;Accession: PT0256
R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain diversity and A;Reference number: PT0222; MUID:91108337
A;Accession: PT0256
A;Accession: PT0256
A;Accession: J13 < YAM>
A;Residues: 1-13 < YAM>
A;Residues: 1-13 < YAM>
A;Experimental source: B lymphocyte
C;Keywords: heterotetramer; immunoglobulin
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A;Cross-references: GB:S76982; NID:9912780; PIDN:AAD14242.1; PID:94261942
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Pred. No. 3.4e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 28; DB 2;
Pred. No. 2.1e+02;
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A;Residues: 1-25 <RES>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4; Mismatches
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A;Map position: 15q23-15q24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Molecule type: protein
A;Residues: 1-20 <TSU>
C;Keywords: hydrolase; metalloproteinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene HEXA protein - human (fragment)
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38.5%;
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50.0%;
21
  2 TLTLTIQTSXPRGMIYDNTG
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Best Local Similarity 50.0
Matches 6; Conservative
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gene HEXA protein - human (fragment)
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Species: 19-May-1998 #sequence_revision 29-May-1998 #text_change 21-Jul-2000
C;Accession: I6489.
R;Boles, D.J.; Proja, R.L.
Am. J. Hum. Genet. 56, 716-724, 1995
Am. J. Hum. Genet. 56, 716-724, 1995
Am. J. Hum. Genet. 15, 716-724, 1995
Am. J. Hum. Genet. 15882; MUID:9519801
A;Reference number: I51882; MUID:9519801
A;Reference number: I51882
A;Reference 
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C;Species: Homo Sapiens (man)
C;Accession: P70302
R;Yamada, M; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G. J. Exp. Med. 173, 395-407, 1991
A;Fille: Preferential utilization of specific immunoglobulin heavy chain diversity A;Reference number: P70222; MUID:91108337
                                                                              Ig heavy chain V region (clone GCC-13) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Species: Mus musculus (house mouse)
C;Date: 24-Feb-1994 #sequence_revision 24-Feb-1994 #text_change 17-Mar-1999
C;Accession: PH1733
R;McHeyzer-Williams, M.G.; McLean, M.J.; Lalor, P.A.; Nossal, G.J.V.
J. Exp. Med. 178, 295-307, 1993
A;Title: Antigen-driven B cell differentiation in vivo.
A;Reference number: PH1675; MUID:93301607
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C;Genetics:
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A; Residues: 1.25 < LWCH>
A; Residues: 1.25 < LWCH>
A; Experimental source: B cell
A; Note: the authors translated the codon ACA for residue 13 as Ala
C; Superfamily: immunoglobulin V region; immunoglobulin homology
C; Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 25;
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Pred. No. 1.3e+03;
5; Mismatches 2;
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A; Résidues: 1-11 < YAM>
A; Résidues: 1-11 < YAM>
A; Experimental source: B lymphocyte
A; Experimental source: B lymphocyte
C; Keywords: heterotetramer: immunoglobulin
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30.0%;
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Best Local Similarity 30.0
Matches 3; Conservative
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Best Local Similarity
Matches 4; Conserv
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N'Alternate names: probable lipocortin

Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)

C'Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)

C'Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)

C'Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)

C'Species: Ovis orientalis, C.A.; Sellers, L.A.; Aitken, A.

Bryoker, A.; Ellis, C.A.; Sellers, L.A.; Aitken, A.

Bryoker, A.; Ellis, C.A.; Sellers, L.A.; Aitken, A.

Bryoker, A.; Ellis, C.A.; Sellers, L.A.; Aitken, A.

A'Itle: Protein kinase C inhibitor proteins. Purification from sheep brain and sequence A; Reference number: $10804; MUID: 90345949

A'MOlecule type: protein

A'MOlecule type: protein

C'Superimental source: brain

C'Superfamily: 14-3-3 protein
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(;Species: Rhizomucor circinelloides f. lusitanicus
(;Species: Rhizomucor circinelloides f. lusitanicus
(;Date: 01-Apr-1993 #sequence_revision 18-Nov-1994 #text_change 04-Dec-1994
(;Accession: 184923
R:DiSanto, M.E.; Li, Q.H.; Logan, D.A.
A:Dacteriol. 174, 447-455, 1992
A:Title: Purification and characterization of a developmentally regulated carboxypeptida
A:Reference number: A44923; MUID:92105011
A; Title: Antigen-driven B cell differentiation in vivo.
A; Reference number: PH1675; MUID:93301607
A; Reference number: PH1675; MUID:93301607
A; Accession: PH1738
A; Residues: 1-23 <MCH>
A; Experimental source: B cell
A; Note: the authors translated the codon TTA for residue 11 as Phe and ATA for residue C; Superfamily: immunoglobulin V region; immunoglobulin homology
C; Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
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Pred. No. 8.1e+02;
3; Mismatches 6; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 23;
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A;Residues: 1-17 <DIS>
A;Note: sequence extracted from NCBI backbone (NCBIP:75616)
                                                                                                                                                                                                                                                                                                                                                                                                                                            24.1%; Score 26; DB 2; Le. 1larity 33.3%; Pred. No. 8.2e+02; Conservative 3; Mismatches 7;
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Pred. No. 8.6e+02;
1; Mismatches 3;
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50.0%;
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35.7%;
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Best Local Similarity 50.0
Matches 4; Conservative
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8 TKSLEIRGNYPYYFD 22
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| KGDYYRYLAEFATG 14
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Best Local Similarity
Matches 5; Conservi
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Matches 5; Conserv
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A; Status: preliminary
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A,Gene: GDB:HEXA A,Cross-references: GDB:120040; OMIM:272800 .A,Map position: 15q23-15q24

9 TCHEEFSN 16

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A;Title: Nucleotide sequence of the sex pheromone inhibitor (iAD1) determinant of Ent A;Reference number: A37391; MUID:91261999
                                                                                                     A;Status: preliminary
A;Molecule type: DNA
A;Molecule type: DNA
A;Molecule type: DNA
A;Molecule type: Lis FONN
A;Note: sequence extracted from NCBI backbone (NCBIN:99901, NCBIP:99906)
A;Note: sequence extracted from NCBI backbone (NCBIN:99901, NCBIP:99906)
B;Clewell, D.B.; Pontius, L.T.; An, F.Y.; Ike, Y.; Suzuki, A.; Nakayama, Plasmid 24, 156-161, 1990
number: A41868; MUID:92250408
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66.7%;
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llarity 36.4%;
Conservative
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Best Local Similarity
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Best Local Similarity
Matches 4; Conserv
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A; Residues: 1-19 <WAS>
                                                                                                                                                                                                                                                                                                                                                                                                                            A; Status: preliminary
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8 YFNPIS 13
                                                                            ;Accession: B41868
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Genome: plasmid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17
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C:Species: Mus musculus (house mouse)
C:Species: Mus musculus (house mouse)
C:Date: 10-Mar-1994 #sequence_revision 10-Mar-1994 #text_change 11-Apr-1995
C:Accession: PH164
S:Casanova, J.L.; Martinon, F.; Gournier, H.; Barra, C.; Pannetier, C.; Regnault, A.; Kc
J. Exp. Mac. 177, 811-820, 1993
A;Title: T cell receptor selection by and recognition of two class I major histocompatib
A;Reference number: PH1430; MUID:93171821
A;Residues: 1-12 <CAS>
A;Experimental source: cytolytic T-lymphocyte
C;Superfamily: immunoglobulin homology
C;Keywords: receptor; T-cell
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1941868
hypothetical protein (traEl 3' region) - Enterococcus faecalis plasmid pAD1
c;Species: Enterococcus faecalis
c;Species: Enterococcus faecalis
c;Date: 04-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 15-Oct-1999
c;Date: 04-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 15-Oct-1999
c;Accession: B41868; B37391
R;Pontius, L.T.; Clewell, D.B.
J; Bacteriol. 174, 3152-3160; 1992
A;Title: Conjugative transfer of Enterococcus faecalis plasmid pAD1: nucleotide sequence
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C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Sate: 12-Apr-1995 #sequence_revision 12-Apr-1995 #text_change 12-Apr-1995
C;Accession: H56046
R;Binette, J.P.; Binette, M.B.; Gawinowicz, M.A.; Kendrick, N.
Submitted to the Protein Sequence Database, February 1995
A;Description: Isolation, characterization and sequence of stone proteins.
A;Reference number: A56046
A;Reference number: A56046
A;Reference pretainary
A;Accession: H56046
A;Reference protein
A;Reference protein
A;Residues: 1-13 <a href="mailto:repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression-repression
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                                                                                                        Score 24; DB 2; Length 12;
Pred. No. 8.7e+02;
2; Mismatches 2; Indels
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Pred. No. 9.4e+02;
!; Mismatches 1; Indels
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Pred. No. 8.7e+02;
1; Mismatches 4
       C; Superfamily: beta-hexosaminidase
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66.7%;
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50.0%;
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50.0%;
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Best Local Similarity 50.0°,
A; Conservative
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Best Local Similarity 50.0
Matches 5; Conservative
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Best Local Similarity
Matches 4; Conserv
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C; Species: Homo sapiens (man)
C; Species: Homo sapiens (man)
C; Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 07-May-1999
C; Accession: PH1304
R; Wasserman, R.; Galill, N.; Ito, Y.; Reichard, B.A.; Shane, S.; Rovera, G.
J. Exp. Med. 176, 1877-1881, 1992
J. Exp. Med. 176, 1877-1881, 1992
A; Title: Predominance of fetal type DJH joining in young children with B precursor ly A; Reference number: PH1302; MUID:93094761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R;Kramer, S.J.; Toschi, A.; Miller, C.A.; Kataoka, H.; Quistad, G.B.; Li, J.P.; Carne Proc. Natl. Acad. Sci. U.S.A. 88, 9458-9462, 1991
A;Title: Identification of an allatostatin from the tobacco hornworm Manduca sexta.
A;Reference number: A61612; MUID:92052112
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C;Date: 21-Jul-1995 #sequence_revision 21-Jul-1995 #text_change 11-Jul-1997
C;Accession: A61612
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A;Status: preliminary
A;Rolecule type: protein
A;Residues: 1-15 < KRA>
C;Keywords: neuropeptide; pyroglutamic acid
E;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
A;Molecule type: DNA_
A;Residues: 1-15 <CLE>
A;Cross-references: GB:M62888; NID:g141853; PIDN:AAA98040.1; PID:g141855
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                                                                                                                                                                                                                                Length 15;
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PH1304
Ig heavy chain DJ region (clone C439-111) - human (fragment)
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Pred. No. 1.1e+03;
1; Mismatches 1;
                                                                                                                                                                                                                             Score 24; DB 2; I
Pred. No. 1.1e+03;
2; Mismatches 5;
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RESULT 22
S04228
N4-(bean-vacetylglucosaminyl)-L-asparaginase (EC 3.5.1.26) 20K chain - rat (fragment N;Alternate names: glycosylasparaginase
C;Species: Rattus norvegicus (Norway rat)
C;Date: 28-Feb-1990 #sequence_revision 28-Feb-1990 #text_change 28-Apr-1993
C;Accession: S04228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         T-cell receptor alpha chain (clone A21) - human (fragment)
C; Species: Homo sapiens (man)
C; Species: Homo sapiens (man)
C; Species: Homo sapiens (man)
C; Species: 10 Mar-1994 #sequence_revision 28-0ct-1994 #text_change 17-Mar-1999
C; Accession: PH1907
S; Sensi, M.; Salvi, S.; Castelli, C.; Maccalli, C.; Mazzocchi, A.; Mortarini, R.; Nic J. Exp. Med. 178, 1231-1246, 1993
A; Title: T cell receptor (TCR) structure of autologous melanoma-reactive cytotoxic T HIA-A2-restricted and melanocyte-lineage-specific CTL clone.
A; Reference number: PH1907; MUID:93389388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R;Tollersrud, O.K.; Aronson Jr., N.N.
B;tochem. J. 260, 101-108, 1989
A;Title: Purification and characterization of rat liver glycosylasparaginase.
A;Reference number: S04228; MUID:89374025
A;Recession: S04228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            celF protein - Escherichia coli (fragment)
C;Species: Escherichia coli
C;Date: 25-Dec-1994 #sequence_revision 10-Nov-1995 #text_change 10-Nov-1995
  A;Residues: 1-21 <PLA>
A;Cross-references: EMBL:X71043; NID:g506512; PIDN:CAA50360.1; PID:g510316
C;Reywords: T-cell receptor
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Best Local Similarity 100.0%; Pred. No. 1.6e+03;
Matches 4; Conservative 0; Mismatches 0;
                                                                                                                   Score 24; DB 2; 1
Pred. No. 1.6e+03;
0; Mismatches 4;
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Pred. No. 1.9e+03;
0; Mismatches 4;
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A; Residues: 1-25 CSEN>
A; Cross-references: EMBL:X74392
A; Experimental source: lymphocyte
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22.2%;
Best Local Similarity 55.6%;
Matches 5; Conservative
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Matches 5; Conservative
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A; Residues: 1-22 <TOL>
C; Keywords: hydrolase
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S42587
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R:Dirks, R.P.H.; Onnekink, C.; Jansen, H.J.; de Jong, A.; Bloemers, H.P.J.
Nucleic Acids Res. 23, 2815-2822, 1995
A; Title: A novel human c-sis mRNA species is transcribed from a promoter in c-sis intron
A; Reference number: S58382; MUID:95388493
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                                                                                                                                                                                                                                                     hypothetical protein 1 - human
C.Species: Homo sapiens (man)
C.Date: 12-Feb-1998 #sequence_revision 20-Feb-1998 #text_change 08-Oct-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C:Species: Homo sapiens (man)
C:Date: 06-Feb-1995 #sequence_revision 06-Feb-1995 #text_change 05-Nov-1999
C:Date: 06-Feb-1995 #sequence_revision 06-Feb-1995 #text_change 05-Nov-1999
C:Accession: S47198
R:Plaza, A.; Kono, D.H.; Theofilopoulos, A.N.
submitted to the EMBL Data Library, February 1993
A:Reference number: S40133
A:Reference number: S40198
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C;Date: 06-Feb-1995 #sequence_revision 06-Feb-1995 #text_change 05-Nov-1999
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A.Molecule type: mRNA
A.Residues: 1-21 <-PLAA
A.S.COSS-references: EMBL:X71041; NID:g507005; PIDN:CAA50358.1; PID:g510655
C:Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Molecule type: mRNÅ
A;Residues: 1-20 <DIR>
A;Cross-references: EMBL:X83705; NID:g951023; PIDN:CAA58678.1; PID:g951024
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  Length 19;
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Pred. No. 1.5e+03;
1; Mismatches 6; Indels
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Score 24; DB 2; Le
Pred. No. 1.4e+03;
3; Mismatches 1;
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Pred. No. 1.6e+03;
0; Mismatches 4;
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submitted to the EMBL Data Library, February 1993
A.Reference number: S40133
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  22.2%;
42.9%;
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46.2%;
Query Match 22.2
Best Local Similarity 42.9
Matches 3; Conservative
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Best Local Similarity
Matches 6; Conserv
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Best Local Similarity
Matches 5; Conserv
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A; Status: preliminary
A; Molecule type: mRNA
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                                                                                           8 TGHPRYF 14
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1 SGYPYYY 7
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R; Plaza, A.; Kono, D
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Search completed: February 5, 2001, 10:49:30 Job time: 743 sec

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C;Accession: S42587
R;Guzzo, A.; DuBow, M.S.
Mol. Gen. Genet. 242, 455-460, 1994
Mol. Gen. Genet. 242, 455-460, 1994
A;Title: A luxAB transcriptional fusion to the cryptic celf gene of Escherichia coll dis A;Reference number: S42587; MUID:94166755
A;Accession: S42587
A;Molecule type: DNA
A;Residues: 1-11 <GUZ>
C;Genetics: A;Gene: celf
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Accession: S47375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R;Lehner, P.J.
submitted to the EMBL Data Library, August 1994
A:Description: Human HLA-A0201 restricted recognition of influenza A is dominated by T
A;Reference number: S47355
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Accession: S47397
Status: preliminary
Molecule type: mRNA
Residues: 113 <LE5>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cross references: EMBL:235700, NID:9527493; PIDN:CAA84769.1; PID:9527494
Accession: S47379
Status: preliminary
Molecule type: mRNA
Residues: 1-13 < LE3>
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Accession: S47398
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Accession: S47396
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C;Keywords: T-cell receptor
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Pred. No. 1.4e+03;
5; Mismatches 2; Indels
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Pred. No. 1.1e+03;
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80.0%;
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Best Local Similarity 80.0
Matches 4; Conservative
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Best Local Similarity 30.0
Matches 3; Conservative
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Molecule type: mRNA
Residues: 1-13 <LE4>
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A; Molecule type: mRNA
A; Residues: 1-13 <LE6>
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Molecule type: mRNA
Residues: 1-13 <LE2>
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6 TPHPR 10
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4 SIRSSYEQYF 13

6 phyllomedus
1 bothrops ja
1 rana pipien
1 conopholis
8 pseudophryn
5 escherichia
1 canis famil

halobacteri halobacteri thunnus obe salmonella

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Post-processing: Minimum Match
Maximum Match
Listing first

    No. is the number of results predicted by chance to have
re greater than or equal to the score of the result being
is derived by analysis of the total score distribution.

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Match
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45 Si
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      DCML_PSECH
AH2_PIGE
CYCH_MOUSE
CYCH_MOUSE
CYCA
HBB2_UTOOHA
DCMS_PSECA
HSB2_LEUMA
LSK1_LEUMA
LSK1_LEUMA
LSK1_LEUMA
LSK1_LEUMA
LSK1_LEUMA
LSKL_DCMI
NSK2_SARBU
UCO8_SUACE
MLB_SQUACE
APID_BOMPA
PROP_SCLTY
FIBR_PACLE
MIF_PIG
OMP1_ACTAC
ATP6_COTJA
KORB_METTM
                                                                                                                                                                                                               RANR_RANRU
DHAB_COMTE
ALLS_MANE
ALLS_MANE
CONTE_SCYCA
FOR1_MYRGU
PPBH_PSEAE
CSPS_STRTR
PGQ_XENLA
CUPB_PROAT
FRHG_METBA
OXLA_OPHHA
PKI2_SOLTU
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19.831 Million cell updates/sec
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    sarcophaga
zea mays (m
squalus aca
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comamonas t
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                                                                                                                                    Leucophaea
                                                                                 RESULT 2
DHAB_COMTE STANDARD; PRT; 19 AA.

ID DHAB_COMTE STANDARD; PRT; 19 AA.

AC P80704;
DT 01-OCT-1996 (Rel. 34, Created)
DT 01-OCT-1996 (Rel. 34, Last sequence update)
DT 15-DEC-1998 (Rel. 37, Last annotation update)
DT 15-DEC-1998 (Rel. 37, Last annotation update)
DE ALDEHYDE DEHYDROGENASE, BETA CHAIN (EC 1.2.99.3) (ALDH) (FRAGMENT).

CC DHACTERIA; Proteobacteria; beta subdivision; Comamonadaceae; Comamona
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RANR_RANRU
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Rana rugosa (Frog).
Eukaryota; Metazoa; Cl
Amphibia; Batrachia; i
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44432103354
STRAIN-ATCC 15667;
LUYKX D.M.A.M., Kim S.W., de Vries S.,
Submitted (JUL-1996) to the SWISS-POT
-I- CATALYTIC ACTIVITY: AN ALDEHYDE + A
REDUCED ACCEPTOR.
-I- COFACTOR: MOLYBDENUM.
-I- SUBBNIT: HETEROTRIMER COMPOSED OF A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RANK_RANKU STANDARD; PRT; p08952; 01-NOV-1988 (Rel. 09, Created) 01-NOV-1988 (Rel. 09, Last sequence up 30-MAY-2000 (Rel. 39, Last annotation
                                                                                                                                                                                                                                                                                                     PFAM; PF02044; Bombesin; 1.
PFROSITE; PS00257; BOMBESIN;
Bombesin family; Amidation.
MOD_RES 17 17
SEQUENCE 17 AA; 2053 MW;
                                                                                                                                                                                                                                                                                                                                                                           Erspamer V., Erspamer G.F., Mazzanti G., Endean R.; Comp. Biochem. Physiol. 77C:99-108(1984).
-1- SIMILARITY: BELONGS TO THE BOMBESIN/NEUROMEDIN
                                                                          SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                          Nakajima T.;
Unpublished results,
                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE.
MEDLINE-84131098; PubMed-6141890;
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Neobatrachia;
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RL18_HALME
RL18_HALSA
RL18_HALSA
RL18_HALVO
LITR_PHYRO
ANG1_BOTJA
RANC_RANPI
RR2_CONAM
TKN3_PSEGU
LPF2_ECOLI
FGF1_CANFA
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Pred. No. 1.8e+02;
2; Mismatches 2
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3A876B35A581863E CRC64;
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Ranidae; Rana
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P80973
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P42559;
01-NOV-1995
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01-NOV-1995
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SEQUENCE
                                                                                                MEDLINE=95062247; Pu
Chauvet J., Rouille
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Manduca sexta (Tobacco hawkmoth) (Tobacco hornworm).

Bukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;

Eutaryota; Neopteara; Endopterygota; Lepidoptera; Glossata; Di

Sphingiodea; Sphingidae; Sphinginae; Manduca.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
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Oxidoreductase; Molybdenum

NON_TER 19 19

SEQUENCE 19 AA; 2096 MW
MEDLINE=95062247; PubMed=7972045;
Chauvet J., Rouille Y., Chauveau C., Ch
"Special evolution of neurohypophysial
fishes: asvatocin and phasvatocin, two
isolated from the spotted dogfish (Scyl
                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata;
Elasmobranchii; Galeomorphii;
Scyliorhinidae; Scyliorhinus.
                                                                                                                                                                                                                                                                                                                                              Scyliorhinus canicula
                                                                                                                                                                                                                                                                                                                                                                                         PHASVATOCIN
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Kramer S.J., Toschi
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Kramer S.J., Toschi A., Miller C.A., Kat
L. J., Carney R.L., Schooley D.A.;
Identification of an allatostatin from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ISSUE-HEAD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C. Natl. Acad. Sci. U.S.A. 88:9458-9462(1991)
FUNCTION: STRONGLY INHIBITS JUPENILE HORMONE BIO
BY THE CORPORA ALLATA FROM FIFTH-STADIUM LARVAE
SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SCYCA
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(Rel. 32, Last sequence update)
(Rel. 32, Last annotation updat
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66
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hordata; Craniata; '
morphii; Galeoidea;
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Pred. No. 4.7e
1; Mismatches
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sial hormones in cartilaging two oxytocin-like peptides (Scyliorhinus caniculus).";
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4.2e+02;
                                                                                                                                                                                                                                                                                      (Spotted catshark).
Vertebrata; Chondrichthyes;
; Carcharhiniformes;
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4.7e+02
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RESULT 5
FOR1_MYRGU
GARRERESONS
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PPBH_PSEAE
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P35483;
01-JUN-1994 (Rel. 3
01-JUN-1994 (Rel. 3
15-JUL-1999 (Rel. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FOR1_MYRGU
P81438;
15-DEC-1998
15-DEC-1998
30-MAY-2000
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MOD_RES
SEQUENCE
                 01-JUN-1994 (Rel. 29, Created)
01-JUN-1994 (Rel. 29, Last seguence update)
15-JUL-1999 (Rel. 38, Last annotation update)
ALKALINE PHOSPHATASE H (EC 3.1.3.1) (H-AP) (F. Pseudomonas aeruginosa.
                                                                                                                                                                                                                                                                                                                                          MEDLINE-98165787; PubMed-9497332;
Mackintosh J.A., Veal D.A., Beattie A.J.,
"Isolation from an ant Myrmecia gulosa of
O-glycosylated proline-rich antibacterial
J. Biol. Chem. 273:6139-6143(1998).
-!- FUNCTION: ANTIBACTERIAL PERTIDE. HAS F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; Hormone;
                                                                                                                                                                                                                                            SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                             Eŭkaryota; Metazoa; Arthropoda;
Pterygota; Neoptera; Endopterygo
Formicoidea; Formicidae; Myrmec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Proc. Natl. Acad. Sci. U-1- FUNCTION: DISPLAYS C-1- SIMILARITY: BELONGS
                                                                                                                                                                                                                                           -1- SIMILARITY: TO DROSOPHILA DROSOCIN.
Antibiotic; Glycoprotein; Insect immunity; Hemolymph.
CARBOHYD 11 1 0-LINKED (GALNAC...).
SEQUENCE 16 AA; 1794 MW; 80CEA3AABBC2EOAE CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE-HEMOLYMPH;
MEDLINE-98165787;
                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE, AND CARBOHYDRATE-LINKAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Myrmecia gulosa (Red bulldog
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FORMAECIN 1.
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        Bacteria; Proteobacteria;
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PTM: O-LINKED GLYCAN CONSISTS OF A GAL-GALNAC
GLYCOSYLATION IS ESSENTIAL FOR FULL BIOLOGICAL
                                                                                                                                                                                                                                                                                                                                   BUT NONE AGAINST
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37, Last sequences 39, Last annotations.
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9
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dae; Myrmecia.
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OXYTOCIC ACTIVITY ON RAT UTERUS
S TO THE VASOPRESSIN/OXYTOCIN FA
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        gamma subdivision; Pseudomonadaceae;
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7.3e+02;
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8.9e+04;
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BACTERIA AND GRAM-POSIT
                                                                                                                                                                                                                                                                                                                                                                   two inducible
peptides.";
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                               (FRAGMENT).
                                                                                                                                                                                                          Length 16;
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SEQUENCE.
STRAIN-H103;
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STRAIN-PB18;
                                                                                                                                                                                  Streptococcus thermophilus.
Bacteria; Firmicutes; Bacillus/Clostridium group; Streptococcaceae;
                                                                                                                                                                                               15-JUL-1999 (Rel. 38, Created)
15-JUL-1999 (Rel. 38, Last sequence up
30-MAY-2000 (Rel. 39, Last annotation
COLD SHOCK PROTEIN CSPST (FRAGMENT).
                                                                                                                                                                                                                                         STRTR
                                                                                                                                                                              Streptococcus.
                                                                                                                                                                                                                                                                                                                                  Hydrolase;
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                                                                                                                                                                                                                                                                         11 PRYFNQLSTG
                         Local Similarity
mes 4; Conserv
\vdash
           7 KTGHPRYFN 15
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DEVELOPMENTAL STAGE: EXPRESSED CONSTITUTIVELY.
SIMILARITY: BELONGS TO THE ALKALINE PHOSPHATASE FAMILY
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KNGTVKWFN 9
                                                                                                                                                                                                                                                                                           Similarity 40.44; Conservative
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19 19
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                                                                                                                                                                                                                                                                                                                            2131 MW;
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                               21.3%;
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                                                                                                                                                                                                                                                                                                                                       Periplasmic.
                               Score 23;
Pred. No.
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                                                          56A4A2800F3345EA CRC64;
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                          Mismatches
                                                                                                                                                                                                       on update)
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                                                                             Activator
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Best Local Similarity 50.0
Matches 4; Conservative
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P39080;
                     Hydrolase;
PROPEP
NON_TER
                                                                                                                                                                      Reeck G.R., Neurath H.;
"Isolation and characterization of pancreatic procarboxypeptidase and carboxypeptidase B of the African lungfish.";
Biochemistry 11:3947-3955(1972).
-!- CATALYTIC ACTIVITY: PEPTIDYI-I-TYSTNE/ABCTANTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-FEB-1991 (Rel. 17, Created)
01-FEB-1991 (Rel. 17, Last sequence update)
01-FEB-1995 (Rel. 31, Last annotation update)
01-FEB-1995 (Rel. 31, Last annotation update)
CARBOXYPEPTIDASE B (EC 34.17.2) (FRACKENT).
Protopterus aethiopicus (Marbled lungfish).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PIR; A41037; A41037.
Antibiotic; Amphibian skin.
SEQUENCE 24 AA; 2457 MW;
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01-FEB-1995 (Rel. 31, Last sequence up
01-FEB-1995 (Rel. 31, Last annotation
ANTIMICROBIAL PEPTIDE PGQ.
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Moore K.S., Bevins C.L., Brasseur M.M.,
Eck H., Zasloff M.;
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                                                                                               INTERPRO; IPR000834; -. PROSITE; PS00132; CARBOXYPEPT_ZN_1; PROSITE; PS00133; CARBOXYPEPT_ZN_2;
SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE-PANCREAS;
MEDLINE-73025047; PubMed-5079891;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Dipnoi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Antimicrobial peptides in the stomach of Xenopus laevis.";
J. Biol. Chem. 266:19851-19857(1991).
-!- FUNCTION: ANTIMICROBIAL PETTIDE.
-!- TISSUE SPECIFICITY: IS SYNTHESIZED IN THE STOMACH AND STORED IN A NOVEL GRANULAR MULTINUCLEATED CELL IN THE GASTRIC MUCOSA.
IT IS STORED AS ACTIVE, PROCESSED PETTIDES IN LARGE GRANULES WITHIN THE GRANULAR GLAND SECRETIONS OF THE SKIN.
-!- SIMILARITY: BELONGS TO THE MAGAININ FAMILY OF ANTIMICROBIAL PETTIDES.
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                                            Carboxypeptidase;
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Pred. No. 1.1e+03
1; Mismatches
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124C910D937BED65 CRC64;
                                               Zinc; Zymogen.
ACTIVATION PEPTIDE.
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SEQUENCE
                                                                                                                                                                                                  ОРННА
        MEDLINE=94361525; PubMed=8080286;
Ponnudurai G., Chung M.C.M., Tan N.-H.;
"Purification and properties of the L-a
                                                                                                   15-DEC-1998 (Rel. 37, Created)
15-JUL-1999 (Rel. 38, Last. sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
1-AMINO ACID OXIDASE (EC 1.4.3.2) (LAO) (LAAO) (FRAGMENT).
Ophiophagus hannah (King cobra) (Naja hannah).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                              P81383;
15-DEC-1998
                                                                                                                                                                                       OXLA_OPHHA
                                                                                                                                                                                                                                                                                                                                                                         Oxidoreductase; Iron-sulfur;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               hydrogenase from Methanosarcina barkeri Fusaro.";

Eur. J. Blochem. 233:727-735(1995).

-i- FUNCTION: REDUCES THE PHYSTOLOGICAL LOW-POTENTIAL TWO-ELECTRON

-CCEPTOR COENZYME F420, AND THE ARTIFICIAL ONE-ELECTRON ACCEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Methanosarcina barkeri.
Archaea; Euryarchaeota;
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01-OCT-1996 (Rel.
COENZYME F420 HYD)
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                                                       SEQUENCE
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Michel R., Massanz C., Kostka S., Richter M., Fiebig K.;
"Biochemical characterization of the 8-hydroxy-5-deazaflavin-reactive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN-FUSARO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEAZAFLAVIN-REDUCING
                                              TISSUE-VENOM;
                                                                                          Lepidosauria; Squamata; Scleroglossa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN=FUSARO / DOMEDLINE=96085134;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Methanosarcina
                                                                                Lapidae;
                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11 PRYFN 15
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                                                                                                                                                                                                                                                                                                                                                                                                                     CATALYTIC ACTIVITY: H(2) + COENZYME F420 - REDUCED COENZYME F420 COFACTOR: FRH CONTAINS NICKEL, IRON-SULFUR, AND FAD COFACTORS. SUBUNIT: PENTAMER OF TWO ALPHA CHAINS, TWO BETA CHAINS AND A
                                                                                                                                                                                                                                                                                                                                                                                               SIMILARITY: TO THE SMALL
                                                                                                                                                                                                                                                                                                                                                                                                           GAMMA CHAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      METHYLVIOLOGEN
                                                                                                                                                                                                                                                                                                                                                                                    HYDROGENASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRSFN 8
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(Calloselasma
                                                                              Elapinae;
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                                                                                                                                                                                                                                                                                           Conservative
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                                                                                                                                                                                                                                                                                                                                                              19
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Rel. 34, Last annotation update)
HYDROGENASE GAMMA SUBUNIT (EC 1.1:
EDUCING HYDROGENASE GAMMA SUBUNIT)
                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DSM 804;
                                                                                                                                                                                                                                                                                                                                                    2012 MW;
                                                                              Ophiophagus
                                                                                                                                                                                                                                                                                                      80.
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                                                                                                                                                                                                                                                                                                     . 0 %;
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Pred. No. 9.8e
0; Mismatches
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                          Electron
                                                                                                                                                                                                                                                                                                                                                                                                SUBUNITS
                                                                                                                                                                                       PRT;
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                                                                                                                                                                                                                                                                                                     NO.
         L-amino
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                                                                                                                                                                                                                                                                                                                                                                                                OF OTHER NI-CONTAINING
                                                                                          Serpentes; Colubroidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19
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1.3e+03;
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          acid oxidase
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(FRH) (
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          from
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          Malayan
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RESULT

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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NON_TER
SEQUENCE
                                                                                                                                                                               "Two Kunitz-type proteinase inhibitors fr

Plant Physiol. 97:15-18(1991).

-!- FUNCTION: POTENT INHIBITOR OF SUBTILI

OF TRYPSIN AND CHYMOTREPSIN.

-!- TISSUE SPECIFICITY: CORTEX OF POTATO

-!- SIMILARITY: TO SOYBEAN TRYPSIN INHIBI
                                                                                                                                                                                                                                                                                                                                                                                                           SOLTU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Characterization and cytotoxicity of L-amino acid venom of king cobra (Ophiophagus hannah)."; Int. J. Biochem. Cell Biol. 29:911-919(1997).
-i- FUNCTION: HAS CYTOTOXIC ACTIVITY (BY SIMILARITY-1- CATALYTIC ACTIVITY: A L-AMINO ACID + H(2)O + O(2)OPHIOPHION.
                                                                                                             Serine protease inhibitor.
                                                                                                                                     PFAM; PF00197; Kunitz_legume; 1. PROSITE; PS00283; SOYBEAN_KUNITZ;
                                                                                                                                                                                                                                                   STRAIN-CV. I
Walsh T.A.,
                                                                                                                                                                                                                                                                                                         Eukaryota; Viridiplantae; Embr
Magnoliophyta; eudicotyledons;
                                                                                                                                                                                                                                                                                                                                 Solanum tuberosum (Potato)
                                                                                                                                                           INTERPRO;
                                                                                                                                                                                                                                                                         SEQUENCE.
                                                                                                                                                                                                                                                                                             Solanales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Oxidoreductase; Flavoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -:- SIMILARITY: BELONGS TO THE FLAVIN MONOAMINE OXIDASE STRONG, TO MOUSE FIG-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -!- COFACTOR: FAD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ahn M.Y., Lee B.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE-97449790;
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                                                                                                                                                                      PROTEASE INHIBITOR.
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                      GHPRYFNQ 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                    PEYENHLA 19
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GHPLRIGQ 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Biochem. Biophys.
                                           Similarity
4; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity 50.
4; Conservative
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                                                                                                                                                           IPR002160;
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                                                                                                    25 AA;
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                                                                                                                                                                                                                                                   Twitchell W.P.;
                                                                                                                                                                                                                                                               BURBANK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PubMed-9304806;
                                                                                                    2920
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                                                       20.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             50
                                                                                                    MW;
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                                                                                                                                                                                                                                                                                                          Embryophyta; Tracheophyta; Spermatophyta; lons; core eudicots; Asteridae; euasterids
                                                                                                                                                                                                                                                             TISSUE-TUBER;
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Pred. No. 1.3e
1; Mismatches
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Pred.
                                                                                                   1F5607405921DFDC
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ed. No. 1.7e
Mismatches
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S (IN REF. 2).
                                                                                                                                                                                 INHIBITOR
                                                        DB 1; .
1.7e+03;
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+ H(2)0 + O(2)
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1.3e+03;
                                                                                                                                                                                                                                        potato tubers.";
                                                                                                                                                                                 (KUNITZ)
                                                                                                     CRC64;
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                                                                   Length
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                                              Indels
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                                                                                                                                                                                    FAMILY
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DCML_PSECH_PID DCML_PID DCML_PSECH_PAC P19916
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AH2_PRUSE
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Matches 5
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01-DEC-1992 (Rel. 24, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation update)
01-NOV-1997 (Rel. 35, Last annotation update)
ANYGDALIN BETA-GLUCOSIDASE I' (EC 3.2.1.117) (AMYGDALIN HYDROLASE ISOZYME I') (AH I') (FRAGMENY).
Frunus serotina (Block Cherry).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kraut M., Hugendieck I., Herwig S., Meyer O.; "Homology and distribution of CO dehydrogenase carboxydotrophic bacteria."; Arch. Microbiol. 152:335-341(1989).
-I- CATALYTIC ACTIVITY: CO + H(2)O + ACCEPTOR -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-FEB-1991 (Rel. 17, Created)
01-FEB-1991 (Rel. 17, Last sequence update)
01-DEC-1992 (Rel. 24, Last annotation update)
CARBON MONOXIDE DEHYDROGENASE LARGE CHAIN (EC
                                                                                                                                                                                 Glycosidase;
                                                                                                                                                                                                                                                                                                                                                                                      Li C.P., Swain E., Poulton J.E.,
"Prunus serotina amygdalin hydrolase and prunasin hydrolase.",
"Prant Physiol. 100:282-290(1992)
-1- CATALYTIC ACTIVITY: (R)-AMYGDALIN + H(2)0 - (R)-PRUNASIN +
                                                                                                                                                                                                                                                                                                                             <del>-</del> -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=90055678; PubMed=2818128;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              Li C.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rissue-seed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rosales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AH2_PRUSE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bacteria; Proteobacteria.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
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                                                                                                                                                                                                                                                                     SUBUNIT: MONOMER.

DEVELOPMENTAL STAGE: ABSENT FROM MATURING BLACK CHERRY FRUITS
UNTIL 6 MEEKS AFTER FLOWERING. THEN, CONCOMITANT WITH COTYLEDON
DEVELOPMENT, THE LEVEL OF ENZYME INCREASES WITH SPECIFICITY FOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COFACTOR: MOLYBDENUM SUBUNIT: CONSISTS OF SMALL.
                                                                                                                                                                                                                                 PTM:
                                                                                                                                                                                                                               PTM: GLYCOSYLATED.
                                                                                                                                                                                                                                                                                                                                                                        D-GLUCOSE.
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  KTGHPRYFNQL 17
                                             Similarity
5; Conserv
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                                                                                                                                                              15
                                                Conservative
                                                                                                                                                                                    Hydrolase; Glycoprotein;
                                                                                                                                                            AA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
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                                                                                                                                                              1650 MW;
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                                             Pred. No. 1.4e
1; Mismatches
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Pred. No.
                                                                                                                                                              F7CC4FA321E12EC4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                         Multigene family.
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8.9e+04;
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                                                                   4e+03;
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                                                                                        Length 15;
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                                             Indels
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ID MLB_SCYCA

AC P01206;

AC P01206;

DT 21-JUL-1986 (Rel. 01, Last sequence update)

DT 01-NOV-1995 (Rel. 32, Last annotation update)

DT 01-NOV-1995 (Rel. 32, Last annotation update)

DE MELANOTROPIN BETA (BETA-MSH).

OS Scyllorhinus canicula (Spotted dogfish) (Spotted catshark).

Scyllorhinus canicula (Spotted dogfish) (Spotted catshark).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Chondrichthyes;

OC Elasmobranchii; Galeomorphii; Galeoidea; Carcharhiniformes;
                                          RESULT
MIB_SCY
ID
AC PO
DT 21
DT 21
DT 21
DT 01
DE ME
OS SC
OC EU
OC EU
RP- SE
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Best Local
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Q61458;
Q1-NOV-1997
Q1-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUBMITTED (NOV-1994) to the EMBL/GenBank/DDBJ databases.

-I- FUNCTION: MEMBER OF CAK WHICH ACTIVATES CYCLIN-ASSOCIATED CDC2/CDK2/CDK4 BY THREONINE PHOSPHORYLATION. ITS EXPRESSION AND ACTIVITY ARE CONSTANT THROUGHOUT THE CELL CYCLE. CAK IS TIGHTLY ASSOCIATED WITH A MULTIPROTEIN COMPLEX TFIIH, WHICH PLAYS A DUAL ROLE IN TRANSCRIPTION AND DNA REPAIR (BY SIMILARITY).
-I- SUBUNIT: MAMMALIAN CAK CONTAINS THREE COMPONENTS: CDK7, CYCLIN H, AND AN ASSEMBLY FACTOR CALLED MAT1.
-I- SUBCELLULAR LOCATION: NUCLEAR (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus musculus (Mouse
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCNH.
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                                                                                                                                                                                                                                                                                                                                                                                                                                  Transcription regulation.
NON_TER 1 1
NON_TER 18 18
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HSSP; P51946; 1KXU.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN-CD-1;
Hall F.L., W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS00292; CYCLIN
Cyclin; Cell cycle; Cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INTERPRO;
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                                                                                                                                                                                                                                                                                                                                           Similarity 36.
4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      us (Mouse).
Metazoa; Chordata; C
---herla; Rodentia; (
                                                                                                                                                                                                                                                                                                                                                                                                                    18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (Rel. 35, Created)
(Rel. 35, Last seq
(Rel. 40, Last ann
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L division;
                                                                                                                                                                                                                                                                                                                                           Score 21; DB 1; L
Pred. No. 1.7e+03;
2; Mismatches 5;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nuclear
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Best Local S
Matches 3
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Best Local Similarity
Matches 4; Conserv
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SEQUENCE
                                                                               01-FEB-1991 (Rel. 17, Created)
01-FEB-1991 (Rel. 17, Last sequence update)
01-JUN-1994 (Rel. 29, Last annotation update)
CARBON MONOXIDE OXYGENASE [CYTOCHROME B-561]
                                                                                                                01-FEB-1991
                                                                                                                                                                                                                                                                                             NON_TER
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01-NOV-1990 (Rel. 16, Last senence up
01-MAY-1991 (Rel. 18, Last annotation
HEMOGLOBIN BETA-2 CHAIN (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PIR; A01470; MTDFBC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE-75113445; PubMed-4452470;
Love R.M., Pickering B.T.;
"A beta-MSH in the pituitary gland of the spotted dogfish
(Scyllorhinus canicula): isolation and structure.";
Gen. Comp. Endocrinol. 24:398-404(1974).
                                                                                                                            P19921
                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=84029159; PubMed=6628672;
Naqvi S., Zaidi Z.H., von Bahr-Lindstroem
Joernvall H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P18992;
        SEQUENCE.
                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Uromastyx hardwickii (Indian spiny-tailed lizard).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Leiolepinae;
                                        Bradyrhizobium
                                                   Pseudomonas carboxydovorans.
Bacteria; Proteobacteria; al
                                                                                                                                    DCMS_PSECA
                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
MEDLINE=90055678; PubMed=2818128;
                                                                                                                                                                                                                                                                                                                           PROSITE;
                                                                                                                                                                                                                                                                                                                                                         EBS Lett. 162:290-295(1983).
                                                                                                                                                                                                                                                                                                                                                                    nardwickii.
                                                                      FRAGMENT)
                                                                                                                                                                                      8 TGHPR 12
||:|:
15 TGNPK 19
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                                                                                                                                                                                                                                                                                                                                                                             Characterization of hemoglobin
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nes 3; Conserv
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                                       Proteobacteria; alpha subdivision; obium group; Oligotropha.
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ing B.T.;
                                                                                                                                                                                                                                                                                   1914 MW;
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Pred.
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No.
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on update)
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1.7e+03;
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                                                   Rhizobiaceae
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RESULT
LSK2_LE
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NSKI_SARBU STANDARD; PRT; 9 AA.

ID NSKI_SARBU STANDARD; PRT; 9 AA.

AC P41492;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-FEB-1996 (Rel. 33, Last annotation update)
DE NEOSULFAKININ-I (NEB-SK-I).
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Best Local S
Matches 3
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Best Local
                                                                                                                         Matches
MOD_RES
MOD_RES
SEQUENCE
                                                                                                                                                                                                                    Sarcophaga bullata (Grey flesh fly) (Neobellieria bullata Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Inse Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Oestroidea; Sarcophagidae; Sarcophaga.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Oxidoreductase; Molybdenum.
NON_TER 21 21
SEQUENCE 21 AA; 2270 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Homology and distribution
                                                                                                                                                                                                                                                                        MEDLINE-93083101;
                                                                                                                                                                                                                                                                                 TISSUE-HEAD;
                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PIR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -! - COFACTOR:
                                                                                                                                                                                            Neuropeptide;
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11 1:
5 GHMRF 9
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3; Conserv
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3; Conserve
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                                                                                                                        Conservative
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                                                                                                                                                                    AA;
                                                                                                                                                                                           Amidation; Sulfatation.
        09, Created)
28, Last sequence update)
32, Last annotation updat
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1187
                                                                                                                                                                                                     GASTRIN; 1
                                                                                                                                                                                                                                                                        PubMed=1360367;
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                                                                                                                                 18.5%;
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                                                                                                                                                                     ME.
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on of CO del
                                                                                                                                                                   SULFATATION (POTENTIAL).
AMIDATION (POTENTIAL).
8B0A0691E86B5AAA CRC64;
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Pred. No. 2e+
0; Mismatches
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Pred.
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                                             PRT;
                                                                                                                          Mismatches
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dehydrogenase
                                                                                                                                 20; DB 1;
No. 8.9e+04
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          update)
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2e+03;
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peptides
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encophaea

maderae (Madeira cockroach), a americana (American cockroac

cockroach)

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RESULT
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Pterygota; Ne
Blaberoidea;
[1]
                INTERPRO;
PROSITE; F
Hormone; I
MOD_RES
MOD_RES
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SEQUENCE
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                                                                                                                                                                                                               MEDLINE-86315858; PubMed-3749893;
Nachman R.J., Holman G.M., Haddon W.
"Leucosulfakinin, a sulfate insect
gastrin and cholecystokinin.";
Science 234:71-73(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                      13-AUG-1987 (Rel. 05, Created)
13-AUG-1987 (Rel. 05, Last sequence up
01-NOV-1995 (Rel. 32, Last annotation
LEUCOSULFAKININ-I (LSK-I)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Isolation and structure of two gastrin/CCK-like neuropeptides the American cockroach homologous to the leucosulfakinins."; neuropeptides 14:145-149(1989).

-!- FUNCTION: CHANGE THE FREQUENCY AND AMPLITUDE OF CONTRACTION THE COCKROACH HINGUT. STIMULATES MUSCLE CONTRACTION OF HIND-!- SIMILARITY; BELONGS TO THE GASTRIN/CHOLECYSTOKININ FAMILY.
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MEDLINE=87048769; PubMed=3778455;
Nachman R.J., Holman G.M., Cook B.J.,
                                                                                                                                                                                                                                                                                                                                                                       Leucophaea maderae (Madeira cockroach).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Orthopteroidea; Dictyoptera; Blattaria;
Blaberoidea; Blaberidae; Leucophaea.
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P04428;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SPECIES-P.AMERICANA; TISSUE-CORPORA CARDIACA; MEDLINE-90137190; PubMed-2615921;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nachman R.J., Holman G.M., Cook B.J., Haddon W.F., "Leucosulfakinin II, a blocked sulfated insect neu homology to cholecystokinin and gastrin."; Biochem. Biophys. Res. Commun. 140:357-364(1986).
                                                                                                                              -!- SIMILARITY: BELONGS PIR; A01622; GMROL.
                                                                                                                                                                                                                                                                                                                                SEQUENCE
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B60656; B60656
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                                                                                                                                                                      CTION: CHANGE THE FREQUENCY AND AMPLITUDE OF CONTRACTIONS COCKROACH HINGUT. INHIBITS MUSCLE CONTRACTION OF HINDGUT.
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Neoptera; Orth
Ba; Blaberidae;
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%S00259; GA
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                                                              Sulfatation.
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SULFATATION (I
P.AMERICANA).
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7E4E0680E86B5AAB
                                         SULFATATION.
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Best Local :
SCHOOLS I., Holman G.L., Hayes T.K., NE SCHOOLS I., Holman G.L., Hayes T.K., NE SCHOOLS I., (eds.); (In) McCaffery A., Wilson I. (eds.); (Chromatography and isolation of insect pp. 231-241, Plenum Press, New York (19) - FUNCTION: MYOTROPIC PEPTIDE.

-I - SIMILARITY: BELONGS TO THE GASTRIN INTERPRO; IPRO01651; -.

RYPROSITE; PS00259; GASTRIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
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MOD_RES 6
MOD_RES 11 1
SEQUENCE 11 AA; 14
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Pterygota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOSK_LOCMI STANDARD; PRT;
p47733;
01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence up
15-DEC-1998 (Rel. 37, Last annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Isolation and structure of two gastrin/CCK:like neuropeptides the American cockroach homologous to the leucosulfakinins."; Neuropeptides 14:145-149(1989).
-1- FUNCTION: STIMULATES HINDGUT CONTRACTIONS.
-1- SIMILARIY: BELONGS TO THE GASTRIN/CHOLECYSTOKININ FAMILY.
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Bukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda;
Pterygota; Neoptera; Orthopteroidea; Dictyoptera; Bla
Blattoidea; Blattidae; Periplaneta.
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01-FEB-1996 (Rel. 33, Last annotation
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Bukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda;
Pterygota; Neoptera; Orthopteroidea; Orthoptera; Cae.
Acridomorpha; Acridoidea; Acrididae; Locusta.
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MEDLINE=90137190; PubMed=2615921;
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;RPRO; IPR001651; -.
;ITE; PS00259; GASTRIN;
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1.5e+03;
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p41493;
01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
01-NOV-1995 (Rel. 32, Last sequence update)
01-FEB-1996 (Rel. 33, Last annotation update)
NEOSULFAKININ-II (NEB-SK-II),
Sarcophaga bullata (Grey flesh fly) (Neobellieria bullata).
Surcophaga bullata (Grey flesh fly) (Neobellieria bullata).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Oestroidea; Sarcophagidae; Sarcophaga.
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SARBU
NSK2_SARBU
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*Isolation and primary structure of two sulfakinin-like peptides
the fleshfly, Neobellieria bullata.";
Comp. Biochem. Physiol. 103C:135-142(1992).
-!- FUNCTION: MYOTROPIC PEPTIDE.
-!- SIMILARITY: BELONGS TO THE GASTRIN/CHOLECYSTOKININ FAMILY.
INTERPRO; IPRO01651; -.
PROSITE; PS00259; GASTRIN; 1.
Touzet P., Riccardi F., Mo:
Pernollet J.-C., Zivy M., (
"The maize two dimensional
                                                                                                                                                                                                                Zea mays (Maize).
Eukaryota; Viridiplantae; Embryophyta; Tracheophyta;
Magnoliophyta; Liliopsida; Poales; Poaceae; Zea.
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                                                                                                        TISSUE-COLEOPTILE;
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1 PYRROLIDONE CARBOXYLIC ACID.

7 SULFATATION (POTENTIAL).

12 AMIDATION.

1440 MW; 9B5B5DA9BD6B5AAA CRC64;
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AMIDATION (POTENTIAL).
8B4E06D5B61C62AA CRC64;
                                        C., Damerval C., Huet J.-C.,
Vienne D.;
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1.9e+03;
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Theor. Appl. Genet. 93:997-1005(1996).
Theor. MISCELLANEOUS: ON THE 2D-GEL THE DETERMINED PI OF THIS UNKNOWN
PROTEIN IS: 6.4, ITS MW IS: 38.8 KDA.
THE SIMILARITY: BELONGS TO THE ZINC-CONTAINING ALCOHOL DEHYDROGENASE
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ALIGNMENTS

Q9UCA7 PRELIMINARY; PRT; 21 AA.
Q9UCA7;
Q1-MAY-2000 (TrEMBLrel. 13, Created)
Q1-MAY-2000 (TrEMBLrel. 13, Last sequence update)
Q1-JUN-2000 (TrEMBLrel. 14, Last annotation update)
AMELOGENIN (FRAGMENT).

Homo sapiens (Human).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; I
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
MCBI_TaxID=9606;

Euteleostom1; Homo.

Catalano-Sherman J., Laskov R., Palmon A., David S., Deutsch D.; "production of a monoclonal antibody against human amelogenin."; Calcif. Tissue Int. 54:76-80(194).
SEQUENCE 21 AA; 2367 MW; 21440C1415CB578F CRC64;

SEQUENCE.
MEDLINE-94163560; PubMed-8118759;

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	<pre>Magnollophyta; Lillopsida; Poales; Poaceae; Hordeum. .NCBI_TaxID=4513;</pre>	Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;	Hordeum vulgare (Barley).	LIGHT-HARVESTING ANTENNA OF PHOTOSYSTEM I 680A, LHCI 680A.	01-MAY-2000 (TrEMBLrel. 13, Last annotation update)	01-MAY-2000 (TrEMBLrel. 13, Last sequence update)	01-MAY-2000 (TrEMBLrel. 13, Created)	Q9S8Z1;	Q9S8Z1 PRELIMINARY; PRT; 23 AA.	21 .	LT 2	8 GHPGYIN 14	9 GHPRYEN 15	Š	Similarity 71.48;	Query Match 29.6%; Score 32; DB·4; Length 21;
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01-MAY-2000
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
GLUTACHIONE S-TRANSFERASE (EC 2.5.1.18).
Octopus vulgaris (Octopus).
Eukaryota; Metazoa; Mollusca; Cephalopoda; Coleoidea;
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SEQUENCE.
SEQUENCE.
MEDLINE-92267013; PubMed=1587270;
Knoetzel J., Svendsen I., Simpson D.J.;
Identification of the photosystem I antenna polypeptides
Isolation of three pigment-binding antenna complexes.";
Eur. J. Biochem. 206:209-215(1992).
SEQUENCE 23 AA; 2282 MW; 194B21969A17581E CRC64;
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MEDLINE=97394467; PubMed=9252185;

Tomb J.-F., White O., Kerlavage A.R., Clayton R.A., Sutton G.G.,

Tomb J.-F., White O., Kerlavage A.R., Clayton R.A., Dougherty B.A

Fleischmann R.D., Ketchum K.A., Klenk H.-P., Gill S., Dougherty B.A

Nelson K., Quackenbush J., Zhou L., Kirkness E.F., Peterson S.,

Loftus B., Richardson D., Dodson R., Khalak H.G., Glodek A.,

Loftus B., Fitzgerald L.M., Lee N., Addams M.D., Hickey E.K.,

McKenney K., Fitzgerald L.M., Lee N., Addams M.D., Hickey E.K.,

Berg D.E., Gocayne J.D., Utterback T.R., Peterson J.D., Kelley J.M.

Cotton M.D., Weidman J.M., Fujii C., Bowman C., Watthey L., Wallin I

Hayes W.S., Borodovsky M., Karp P.D., Smith H.O., Fraser C.M.,
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01-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hypothetical protein. SEQUENCE 25 AA; 3075 MW;
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Nature 388:539-547(1997).
EMBL; AE000651; AAD08577.1;
TIGR; HP1528; -
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Bacteria; Proteobacteria; epsilon subdivision; Helicobacter
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Q9R5S1;
Q1-MAY-2000 (TIEMBLrel. 13,
Q1-MAY-2000 (TIEMBLrel. 13,
Q1-MAY-2000 (TIEMBLrel. 13,
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lens S-crystallin.";
J. Protein Chem. 13:609-618(1994).
SEQUENCE 20 AA; 2524 MW; 57C23D23DA8B3D9D CRC64;
MEDLINE-95237623; PubMed-7721104;
Delhase M., Vila V., Hooghe-Peters E.L., Castrillo J.L.
"A novel pituitary transcription factor is produced by
                                                                                                                                           Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                           GHF-1.
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SEQUENCE 24 AA; 2561 MW; CD2FC38D78C2F20B CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PENICILLIN-BINDING PROTEIN 4, PBP4.
Enterococcus hirae.
Bacteria; Firmicutes; Bacillus/Clostridium
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NCBI_TaxID=6645;
[1]
                                                                TISSUE-PLACENTA;
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Gene 155:273-275(1995).
EMBL; X77223; CAA54441.1; -
EMBL; X77224; CAA54441.1; JOINED.
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Streptomyces griseus.
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METALLOENDOPEPTIDASE I, METALLOENDOPEPTIDASE
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"Cloning of promoter-like sequences from Lactobacillus
subsp. paracasei CGl1 and their expression in Escherich
Lactococcus lactis, and Lactobacillus reuteri.";
Can. J. Microbiol. 40:1043-1050(1994).
EMBL; S76788; AAB33947.2; -.

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01-MAY-2000
01-MAY-2000
01-MAY-2000
                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.

MEDILINE=92201825; PubMed=1551666;

Nicholls A.C., Oliver J., Renouf D.V., Heath D.A., Pope F.M.;

Nicholls A.C., Oliver J., Renouf D.V., Heath D.A., Pope F.M.;

"The molecular defect in a family with mild atypical osteogenesis imperfecta and extreme joint hypermobility: exon skipping caused ill-bp deletion from an intron in one COLIA2 allele.";

Hum. Genet. 88:627-633(1992).

EMBL; S89895; AAB21862.1; -.

SEQUENCE 12 AA; 1161 MW; D5BD7D21FAE861B6 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Mode of membrane insertion and sequence of a stretch of the penicillin-binding protein 4 of FEMS Microbiol. Lett. 65:119-123(1991).
SEQUENCE 25 AA; 2707 MW; 9189FB2F034C44BF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-MAY-2000 (TrEMBLrel. 13, 01-MAY-2000 (TrEMBLrel. 13, PENICILLIN-BINDING PROTEIN
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Mammalia; Eutheria;
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Ghuysen J.M.;
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Eukaryota; Metazoa;
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(TIEMBLrel. 08, Last annotation update)
PHA 2(I) CHAIN CB PEPTIDE ALPHA 2CB4.
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Kharroubi A., Van
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O1-MAY-1999 (TrEMBLrel. 10, Created)
O1-MAY-1999 (TrEMBLrel. 10, Last sequence update)
O1-MAY-1999 (TrEMBLrel. 13, Last annotation update)
PROBABLY NOT EXPRESSED DUE TO SNRNA OVERLAPPING (FRAGMENT).
Saccharomyces cerevisiae (Baker's yeast).
Eukaryota; Fungi; Ascomycota; Saccharomycetes; Saccharomycetales;
Saccharomycetaceae; Saccharomyces.
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Q9TRR4;
01-MAY-2000
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                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
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Tokumitsu H., Mizutani A., Minami H., Kobayashi R., Hidaka Tokumitsi H., Mizutani A., Minami H., Kobayashi R., Hidaka "A calcyclin-associated protein is a newly identified memba "A calcyclin-associated proteins, annexin family.";
Ca2+/phospholipid-binding proteins, annexin family.";
J. Biol. Chem. 267:8919-8924(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Oryctolagus cuniculus (Rabbit).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
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01-MAY-2000 (TIEMBLITE). 13, Last sequence update)
01-CCT-2000 (TIEMBLITE). 15, Last annotation update)
CALCYCLIN-ASSOCIATED PROTEIN, CAP50-CA2+/PHOSPHOLIPID-BINDING PROTEIN
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Submitted (JUL-1996)
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Pred. No. 1.2e
5; Mismatches
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Pred. No. 1.4e
4; Mismatches
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013594;
01-JAN-1998 (TIEMBLITEL. COLUMN COLUM
   Q85462;
01-NOV-1996
01-JAN-1999
01-JAN-1999
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Q9TRQ6;
01-MAY-2000
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SEQUENCE
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MEDLINE=92317074; PubMed=1618851;

Mizutani A., Usuda N., Tokumitsu H.,

Kobayashi R., Hidaka H.;

"CAP-50, a newly identified annexin,
fibroblast 311 cells.";
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
Bovidae; Bovinae; Bos.
NCBI_TaxID-9913;
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01-MAY-2000 (TremBirel 13, I
01-MAY-2000 (TremBirel 13, I
CALCYCLIN-ASSOCIATED PROTEIN
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Eukaryota; Fungi; Ascomycota; Saccharomycetes; Saccharomycetaceae; Saccharomyces.
                                                                                                                         Q85462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 J. Biol. Chem. 26
SEQUENCE 21 AA;
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Boyer J., Fairhead C.,
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(JUL-1996) to
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(TrEMBLrel. (TrEMBLrel. (TrEMBLrel.
                                                                                                                            PRELIMINARY;
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NA; 2352 MW; 998D0E8AC173DA19
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41.2%;
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31.6%;
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Pred.
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Pred. No. 1.4e+03
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annotation update)
TIDE L-13, CAP-50-ANNEXIN.
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MEDLINE-88275035; PubMed-2839694;

KATZ R.A., Kotler M., Skalka A.M.;

"cis-acting intron mutations that affect the efficiency of avian retroviral RNA splicing: implication for mechanisms of control.";

J. Virol. 62:2686-2695(1988).

EMBL; M21395; AAA42413.1; -.
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SEQUENCE
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
BETA 2M- CLASS I-BINDING PEPTIDE-MAJOR HISTOCOMPATIBILITY COMPLEX
H-2KB-SPECIFIC MOLECULE POORLY ASSOCIATED WITH BETA 2-MICROGLOBULIN.
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Viruses; Retro
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01-MAY-2000 (TREMBLrel. 13, Last sequence update)
01-MAY-2000 (TREMBLrel. 13, Last annotation update)
01-MAY-2000 (TREMBLrel. 13, Last annotation update)
MAJOR POLLEN ALLERGEN PLA L 1 (FRAGMENT)
Plantago lanceolata (narrow-leaved plantain)
Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spe:
Magnoliophyta; eudicotyledons; core eudicots; Asteridae;
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NCBI_TaxID=11876;
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Pred. No. 1.4e+03;
0; Mismatches 2;
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Pred. No. 8.
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J. Allergy (
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Submitted (MAR-1990) ...
EMBL; AF055394; AAC35334.1;
EMBL; AF055393; AAC35324.1;
EMBL; AF055393; AAC35324.1;
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Calabozo B., barber D., Polo F.;
Calabozo B., barber D., Polo F.;
"Purification and characterization of 1
lanceolata pollen, Pla 1 1.";
J. Allergy Clin. Immunol. 0:0-0(1999).
                                                                         01-MAY-1999 (TREMBLIEL 10,
01-MAY-1999 (TREMBLIEL 10,
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DNAJZ PROTEIN (FRAGMENT).
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Ellis J.A., Hassard L.E., Clark E.G.,
"Characterization of novel circovirus
syndromes in pigs.",
J. Gen. Virol. 79:2171-2199(1998).
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Viruses; ssDNA viruses;
NCBI_TaxID=46221;
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Anabaena sp.
Bacteria; Cyanobacteria;
NCBI_TaxID=1167;
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"Species-specific regula
region of the p53 tumor
                                                                                                                   SEQUENCE FROM N.A.
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01-NOV-1996 (TrEMBLrel. 01, Created)

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EMBL; AF1
NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                        Q9UWK5;
                                                                  Bertram P.A., Schmitz R.A., Linder D., Thauer R.K.;
"Tungstate can substitute for molybdate in sustaining growth of Methanobacterium thermoautotrophicum. Identification and characterization of a tungsten isoenzyme of formylmethanofuran
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Clewell D.B., Pontius L.T., An F.Y., Ike Y., Suzuki A., Nakayama J.; "Nucleotide sequence of the sex pheromone inhibitor (iAD1) determinant of Enterooccus faccalis conjugative plasmid pAD1."; Plasmid 24:156-161(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Enterococcus faecalis
Plasmid pAD1.
Bacteria; Firmicutes;
                       dehydrogenase.";
Arch. Microbiol.
                                                                                                                                                                                                                                                   Archaea; Euryarchaeota;
Methanobacterium.
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01-MAY-2000
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161:220-228(1994)
; 2575 MW; EC412
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01-MAY-2000
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MEDLINE-94043690; PubMed-7693750;

Barnett L.A., Whitton J.L., Wada Y., Fujinami R.S.;

"Enhancement of autoimmune disease using recombinant vaccinia virus encoding myelin proteolipid protein.";

J. Neuroimmunol. 48:120-120(1993).

SEQUENCE 13 AA; 1538 MW; 2A33FF99B5807733 CRC64;
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

MCBI_TaxID-9606;
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NCBI_TaxID-10095;
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-CCT-2000 (TrEMBLrel. 15, Last annotation update)
ASPARTYLGLUCOSAMINIDASE ALPHA SUBUNIT (FRAGMENT).
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%; Pred. No. 3e+
0; Mismatches
                                                                                                                                                                                          Score 23; DB 11; L
Pred. No. 2.4e+03;
Pred. No. 2.4e+03;
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Search completed: February 5, 2001, 10:55:26

GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.

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Gapop 10.0 , Gapext.0.5
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Glutamic acid deca
GAD65 fragment, pe
Glutamic acid deca
GAD65 fragment, pe
65 kD Glutamic aci
Human 65 kD glutam
Peptide derived fr
65 kD Glutamic aci
GAD65 residues 177
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	797		P60962	Y26613	Y39991	R74073	R20236	W74168	R90371	R57905	Y13277	Y13300	Y13251	R63875	R68754	Y99311	W70635	Y58198	W92559	W92558	80010X	W80790	W82926	W82934	W35210	W35218	R43130	Y57311	Y91936	R49435	R49436	¥36566
receptor	ecepto	Toxoplasma gondii	Polypeptide which	-derived lipo	Negative	erantigen pep) pept	peptid		generat		occurr	Naturally occurrin	:ype I	toxic T ly	LA class II b	d generat	ST	beta-actin	ta-actin	Bacterial immunoge	Ö	ipathogenic pe	nic.	pep	Diastereomer pepti	RV2 2	ruginosa c	eptide	Calgranulin B posi	lgranulin B	Fragment of human

ALIGNMENTS

W18845 standard; peptide; 20

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W18845;

65 kD Glutamic acid decarboxylase peptide fragment IV.

05-JAN-1998 (first entry)

GAD; 65 kD; human; glutamic acid decarboxylase; autoreactive; diagnosis; insulin-dependent diabetes mellitus; IDDM; cell-mediated disease; predisposition; autoimmune; tumour; rheumatoid arthritis;

Synthetic multiple sclerosis.

20-JUL-1995; DE19526561-A1. 23-JAN-1997. 95DE-1026561

20-JUL-1995; 95DE-1026561

(BOEF) BOEHRINGER MANNHEIM GMBH

Donie F, Endl J, Ganz M, Jung G, Pozzilli P, Stahl P; Kientsch-engel

WPI; 1997-088254/09

Skin test for diagnosis of cell-mediated diseases, esp. diabetes involving intradermal admin. of auto:reactive substances

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W01796
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                            Albert W,
Stahl P,
The present peptide is a framgent of the human 65 kD glutamine decarboxylase (GAD), which can be used to diagnose, or diagnose a predisposition to, a tumour or immunological disease, preferably an autoimmune disease, especially diabetes. It can also be used as a reagent to determine specific T cell subpopulations, in medicaments to treat or prevent immunological diseases, prefereably autoimmune diseases, especially diabetes, to produce antigens, especially subpopulations, which can be used to produce antigens or for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             diseases or a predisposition to cell-mediated diseases, which is effected by administering an autoreactive substance intradermally and establishing the diagnosts on the basis of the occurrence or lack of a positive reaction at the site of administration. The method is used for diagnosis of the occurrence and its used for diagnosis of autoimment and transmissions.
                                                                                                                                                                                                                                            Claim 1;
                                                                                                                                                                                                                                                                                                                Glutamine decarboxylase peptide(s) - for diagnosis and therapy
                                                                                                                                                                                                                                                                                                                                                                  WPI; 1997-078452/08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-JUL-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human 65 kD glutamine decarboxylase peptide.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim
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                                                                                                                                                                                                                                          Page 12;
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Van Endert
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Pred. No. 1.8e-12;
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Best Local
                        w12403-w12413 represent fragments and analogues of the the 65 kD isoform of human glutamic acid decarboxylase (GAD65) (see w12402 for full length wild type protein). GAD is an enzyme expressed in the beta cells of the pancreas, and in neurons of the central nervous system. There are two isoforms of GAD, a 67 kD isoform, and GAD65. Immunodominant regions of GAD65 have been identified in Type I dilabetic patients. These GAD65 fragments, and analogues, are used in the methods of the invention. The methods are for detecting or treating diabetes or a predisposition to diabetes. The peptides can also be used for ameliorating an autoimmune response in a patient. Alteration of the native peptides with selective changes of crucial residues can induce unresponsiveness or change the responses of antigen-specific autoreactive T cells. The peptide analogues compete for binding to MHC and do not cause proliferation of the corresponding native peptide-specific T cells.
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                                                                                                                                                                                                                                        Claim 22; Page -; 28pp;
                                                                                                                                                                                                                                                                 New human glutamic acid decarboxylase peptide(s) - used for treatment, diagnosis and determining predisposition to diabetes for ameliorating auto-immune responses.
                                                                                                                                                                                                                                                                                                                                                   Conlon PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            65 kD glutamic acid decarboxylase; human; GAD65; enzyme; pancreas; neuron; central nervous system; type I diabetes; autoimmune response;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAD65 residues 173-187
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NEUROCRINE BIOSCIENCES INC
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Pred. No. 1.8e-12;
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Matches 13
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                                                                                                                                                          Q86481 and Q86482 encode R71733 and R79105, rat and human glutamic acid decarboxylase (GAD65) respectively, from which the GAD65 fragments described in R72261-R72298 were derived. These fragments can be used to detect autoantibodies against GAD, e.g. to diagnose and treat GAD-related autoimmune disorders, such as insulin dependant diabetes mellitus or stiff man disease.
                                                                                                                                                                                                                                New polypeptide fragments of glutamic acid decarboxylase - for diagnosis and treatment of auto:immune disease, esp. insulin dependent diabetes, also related nucleic acid, vectors, antibodies, hybridoma(s) etc.
        03-APR-2000
                       Y59572;
                                     Y59572 standard;
                                                                                                                                              Sequence
                                                                                                                                                                                                                Example 11; Page 76; 100pp; English
                                                                                                                                                                                                                                                                       WPI; 1995-131360/17.
                                                                                                                                                                                                                                                                                     Clare-Salzler MJ, Erlander MG,
                                                                                                                                                                                                                                                                                                                   17-SEP-1993;
                                                                                                                                                                                                                                                                                                                                  24-AUG-1994;
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13; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                    decarboxylase
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                                     peptide;
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                                                                                                                                                                                                                                                                                                                                                                                                                    (GAD65) fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 74;
Pred. No.
                                     A
                                                                                                               Score 72; DB 16;
Pred. No. 3.5e-06;
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Best Local Similarity
Matches 13; Conserv
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21-SEP-1990;
       23-MAR-1995
                      W09507992-A.
                                                                          Glutamic
                                                                                         13-NOV-1995
                                                                                                                                                                                                                               Sequence
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                                    Homo sapiens
                                                                                                        R72271;
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                                                                                                                                                                                                                                                                                                                                                                                                     Tobin AJ,
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GAD65; glutamic acid decarboxylase 65; autoimmune disorder; IDDM;
insulin dependent diabetes mellitus; Stiff man disease; diagnosis
WPI; 2000-095930/08
                                                                               (REGC ) UNIV CALIFORNIA
                                        Kaufman DL,
                                                                                                                      95US-0485725.
90US-0586536.
91US-0716909.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      peptide #12
                                        Erlander
                                        <u>გ</u>
                                                                                                                                                                                                                                                                                                                                                                                          diagnosis;
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Ameliorating glutamic acid decarboxylase associated autoimmune disorders such as insulin dependent diabetes mellitus and Stiff man

Column 42; 61pp; English.

This sequence represents a fragment of the glutamic acid decarboxylase 65 (GAD65) protein. The invention relates to a method of ameliorating GAD associated autoimmune disorders by administering a GAD65 peptide to the patient. The method can be used for ameliorating GAD associated autoimmune disorders such as IDDM (insulin dependent diabetes mellitus) and Stiff man disease. GAD65 can also be useful for screening drugs that alter GAD function, for generating monoclonal antibodies and in immunoassays. GAD65 is an effective diagnostic tool for predicting IDDM and the diagnosis is quite easy. It is also possible to obtain much larger quantities of polypeptide via recombinant techniques than are available from natural sources.

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7 KTGHPRYFNQLSTG 20
                    Conservative
                            66.7%;
92.9%;
                    <u>,,</u>
                            Score 72; DB 21;
Pred. No. 3.5e-06;
                    Mismatches
                                    Length 20
                    Indels
                    0
                    Gaps
                    0
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R72271 standard; Peptide; 20 B

(first entry)

decarboxylase (GAD65) fragment.

Glutamic acid decarboxylase; GAD65; auotimmune disorders; insulin-dependant diabetes mellitus; stiff man disease.

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Matches 11
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21-SEP-1990;
18-JUN-1991;
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  Claim 1; Column
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAD65 fragment, peptide #11
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                                                                     Ameliorating glutamic acid disorders such as insulin o
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91US-0716909.
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    42;
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61pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                Skin test involving
                                                    w18842-70 are peptide fragments of the 65 kD human glutamic acid decarboxylase (GAD). The fragments are autoreactive substances used for diagnosis of insulin-dependent diabetes mellitus (IDDM). The diagnosis is determined by using a claimed method for diagnosis of cell-mediated diseases or a predisposition to cell-mediated diseases, which is effected by administering an autoreactive substance intradermally and establishing the diagnosis on the basis of the occurrence or lack of a positive reaction at the site of administration. The method is used for diagnosis of autoimmune and tumour diseases, preferably T-cell-mediated diseases
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Pozzilli
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                              such as rheumatoid
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                                                                                                                                                                                                                                                                                                                                                                                                                for diagnosis of cell-mediated diseases, esp. diabetes intradermal admin. of auto:reactive substances
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                              arthritis,
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                                                                                                            The present peptide is a framgent of the human 65 kD glutamine decarboxylase (GAD), which can be used to diagnose, or diagnose a predisposition to, a tumour or immunological disease, preferably an autoimmune disease, especially diabetes. It can also be used as a reagent to determine specific T cell subpopulations, in medicaments to treat or prevent immunological diseases, respecially diabetes, to produce antigens, especially immunogens or tolerogens and to isolate specific T cell subpopulations, which can be used to produce antigens or for reinjection, optionally after inactivation.
                                                                                                                                                                                                                                                                                                                     Albert W,
Stahl P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tumour; immunological; disease; autoin determination; T cell; subpopulation;
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                                                                                               Sequence
                                                                                                                                                                                                                                          Claim 1; Page 12; 15pp; German.
                                                                                                                                                                                                                                                                          Glutamine decarboxylase peptide(s)
                                                                                                                                                                                                                                                                                               WPI; 1997-078452/08
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     reinjection;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human 65 kD glutamine decarboxylase peptide
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/an Endert P;
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insulin-dependent diabetes mellitus; IDDM; cell predisposition; autoimmune; tumour; rheumatoid multiple sclerosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Antigen-specific activated T-lymphocytes and their detection interaction with inventive peptide(s) of peptide-MHC complexes; useful in diagnosis of e.g. diabetes and auto:immune diseases
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                                                                                GAD; 65 kD;
                                                                                                                              65.kD Glutamic acid decarboxylase peptide fragment 16
                                                                                                                                                                                 05-JAN-1998
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20-JAN-1994;
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9; Conserv
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BOEHRINGER MANNHEIM GMBH.
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                                                     human; glutamic acid decarboxylase; autoreactive; diagnosis; endent diabetes mellitus; IDDM; cell-mediated disease;
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94DE-4401629.
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0.036;
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arthritis;

DE19526561-A1 Synthetic.

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RESULT
W12405
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Best Local S
Matches 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                W18842-70 are peptide fragments of the 65 kD human glutamic acid decarboxylase (GAD). The fragments are autoreactive substances used for diagnosis of insulin-dependent diabetes mellitus (IDDM). The diagnosis is determined by using a claimed method for diagnosis of cell-mediated diseases or a predisposition to cell-mediated diseases, which is effected by administering an autoreactive substance intradermally and establishing the diagnosis on the basis of the occurrence or lack of a positive reaction at the site of administration. The method is used for diagnosis of autoimmune and tumour diseases, preferably T-cell-mediated diseases such as rheumatoid arthritis, multiple sclerosis and especially IDDM.
                                                                                                                                                                                                                         GAD65 residues 177-191.
                                                                                                                                                                                                                                                  08-OCT-1997
                                                                                                                                                                                                                                                                           W12405
                                                                                                                                                                                                                                                                                                 W12405 standard; peptide; 15 AA.
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          24-JUN-1996;
                                  09-JAN-1997.
                                                            WO9700891-A1
                                                                                                           Misc-difference
                                                                                                                                                                                65 kD glutamic acid decarboxylase; human; GAD65; enzyme; pancreas; neuron; central nervous system; type I diabetes; autoimmune respon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 11;
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Pozzilli P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-JAN-1997
                                                                                                                                                Homo sapiens.
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                                                                                                                                                                        cell; therapy.
                                                                                                                                                                                                                                                                                                                          12
                                                                                                                                                                                                                                                                                                                                                                                     12 RYFNQLSTG 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                test for diagnosis of cell-mediated diseases, esp. diabetes lving intradermal admin. of auto:reactive substances
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9; Conser
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p, Stahl P;
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           96WO-US10790.
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100.08
                                                                                 "optionally substituted, providing at residues remain wild type"
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0.036;
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RESULT
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      PRRRACE ON CONTRACTOR OF THE PRR RESERVED TO THE PR RESERV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        w12403-w12413 represent fragments and analogues of the the 65 kD isoform of human glutamic acid decarboxylase (CAD65) (see W12402 for full length wild type protein). GAD is an enzyme expressed in the beta cells of the pancreas, and in neurons of the central nervous system. There are two isoforms of GAD, a 67 kD isoform, and GAD65. Immunodominant regions of GAD65 have been identified in Type I diabetic patients. These GAD65 fragments, and analogues, are used in the methods of the invention. The methods are for detecting or treating diabetes or a predisposition to diabetes. The peptides can also be used for ameliorating an autoimmune response in a patient. Alteration of the native peptides with selective changes of crucial residues can induce unresponsiveness or change the responsiveness of antigen-specific autoreactive T cells. The peptide analogues compete for binding to MHC and do not cause proliferation of the corresponding native peptide-specific T cells.
19-DEC-1997;
18-DEC-1997;
18-DEC-1997;
18-DEC-1997;
18-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                               foetal deficiency; blood disorder; immune system disorder; inflammati autoimmune disease; allergy; Alzheimer's disease; cognitive disorder; schizophrenia; arthritis; asthma; psoriasis; sepsis; skin disorder; atherosclerosis; diabetes; cardiovascular disorder; kidney disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fragment of human secreted protein encoded by gene 39.
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(NEUR-)
(SBAR-)
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                                                                                                                                                                                                                                                                                                                                                                                                             digestive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; secreted protein; cancer; tumour; developmental abnormality; foetal deficiency; blood disorder; immune system disorder; inflamma
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NEUROCRINE BIOSCIENCES INC.
ST BARTHOLOMEW'S HOSPITAL CENT CLINICAL.
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Conservative (
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97US-0068006
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                                                                                                                                                                                                                                                                                                                                                                                                             endocrine disorder;
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0.039;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               inflammation;
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RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CC x97916 to x98029 represent 110 isolated human secreted protein genes.
CC x96224 to x36727 represent the secreted proteins encoded by the 110
CC human genes. The genes and their corresponding secreted polypeptides are useful for preventing, treating or ameliorating medical conditions.
CC e.g. by protein or gene therapy. Also pathological conditions can be considered by determining the amount of the new polypeptides in a sample corresponding the control of the new genes. Specific corresponding the presence of mutations in the new genes. Specific cancer by determining the presence of mutations in the new genes. Specific cancer most highly expressed in, and include developing products for the CC disgnosis or treatment of cancer, tumours, developmental abnormalities autoimmune diseases, inflammation, allergies, histoimer's and cognitive cdisorders, schizophrenia, arthritis, asthma, psoriasis, sepsis, skin coloreders, schizophrenia, arthritis, asthma, psoriasis, sepsis, skin coloreders, diseases are also useful for identifying their binding partners. The polypeptides are also useful for identifying their binding partners. The exequences given in x97907 to x97915 and x36223 are used in the exemplification of the present invention.
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18-DEC-1997;
18-DEC-1997;
18-DEC-1997;
                                                                                    Naturally-occuring; immunomodulatory protein; human; therapy; class I; major histocompatibility complex; class II; allotype; type I diabetes; autoimmune disease; rheumatoid arthritis; T-cell-mediated response; mutiple sclerosis; transplant rejection; vaccine; MHC.
                                                                                                                                                                Calgranulin B position 43/88-114.
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19-DEC-1997;
19-DEC-1997;
03-MAR-1994
                              W09404171-A.
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                                                          Homo sapiens
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ce K, Greene JM, Ja
Rosen CA, Ruben SM,
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                                                                                                                                                                                               (first entry)
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97US-0070923.
97US-0068169.
97US-0068367.
97US-0068368.
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M, Janat
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Pred. No. 19;
2; Mismatches
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Shi Y, Soppe
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, Soppet DR,
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19;
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i, Moore PA;
bet DR, Wei Y;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
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Matches 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                fragments of naturally-occuring immunomodulatory proteins. These fragments are between 10-30 residues in length and bind to a human major histocompatibility complex (MHC) class II allotype. These peptides may be used for therapy of autoimmune diseases, such as type I diabetes, rheumatoid arthritis and mutiple sclerosis, and to reduce transplant rejection. They may also be used for vaccination providing an exclusively T-cell-mediated response, which can be class I or class-II based, or both, depending on the length and character of the immunogenic peptides.
           Chicz RM, :
                                                                                                                                                                                                                 major histocompatibility complex; class II; allotype; type I diabet autoimmune disease; rheumatoid arthritis; T-cell-mediated response;
                                                                                                                                                                                                                               Naturally-occuring; immunomodulatory protein; human; therapy; class I; major histocompatibility complex; class II; allotype; type I diabetes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11-AUG-1993;
                                                                       11-AUG-1992;
15-JUN-1993;
                                                                                                                                  03-MAR-1994
                                                                                                                                                                                                       mutiple sclerosis;
                                                                                                                                                                                                                                                                  Calgranulin B position 42/88-114.
                                                                                                                                                                                                                                                                                                                 R49435;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The sequences given in R49291-505 and R46981-7038 represent peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel immunomodulatory peptide(s) a treatment of auto:immune diseases,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chicz RM,
Vignali DA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11-AUG-1992;
15-JUN-1993;
                                                                                                          11-AUG-1993;
                                                                                                                                                         WO9404171-A
                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                       R49435 standard; Protein; 24 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 92; 139pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1994-082825/10
                                               (HARD ) HARVARD COLLEGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            vaccination
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (HARD ) HARVARD COLLEGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
les 6; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                         KTGHPRYFNQ 16
                       Hedley ML,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hedley ML,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14 AA;
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                                                                                                                                                                                                                                                                                         (first entry)
                                                                      92US-0925460
93US-0925460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           92US-0925460.
93US-0925460;
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                         Stern
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Pred.
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, transplant rejection
                       Strominger JL,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             NO ;
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23;
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1994-082825/10

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RESULT 16
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Best Local S
Matches 6
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                                                                                         Phosphorylating a serine-containing substrate by incubating it with adenosine triphosphate and Rec2 kinase and measuring the level of phosphorylation, useful for discovering specific antagonists or
                                                                                                                                           WPI;
                                                                                                                                                                                                    (UYJE-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The sequences given in R49291-505 and R46981-7038 represent peptide fragments of naturally-occuring immunomodulatory proteins. These
                                                        Example
                                                                                 phosphorylation, agonists of Rec2
                                                                                                                                                                  Havre PA,
                                                                                                                                                                                        (KIME-)
                                                                                                                                                                                                                                      21-SEP-1998;
                                                                                                                                                                                                                                                            17-SEP-1999;
                                                                                                                                                                                                                                                                                   30-MAR-2000
                                                                                                                                                                                                                                                                                                          WO200017329-A1
                                                                                                                                                                                                                                                                                                                                                       phosphorylation;
                                                                                                                                                                                                                                                                                                                                                                    HsRec2;
                                                                                                                                                                                                                                                                                                                                                                                          HsRec2 peptide
                                                                                                                                                                                                                                                                                                                                                                                                                  19-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                         Y91936;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Y91936 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 92; 139pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel immunomodulatory peptide(s) and nucleic acids - useful for treatment of auto:immune diseases, transplant rejection and for
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7 KTGHPRYFNQ 16
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                                                                                                                                                                                        KIMERAGEN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                    serine kinase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      얁
                                                                                                                                                                Rice MC,
                                                        Page 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the immunogenic peptides.
                                                                                                                                                                                                                                                                                                                                                                                         residues 153-172.
                                                                                                                                                                                                                                    9805-0157603.
                                                                                                                                                                                                                                                             99WO-US21642
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Peptide;
                                                                                                                                                                                                                                                                                                                                                         cyclin E;
                                                                                                                                                                                         INC.
                                                      41pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29.6%;
                                                                                                                                                                  Holloman
                                                                                                                                                                                                                                                                                                                                                       homologous pairing; strand transfer; n E; p53; cell cycle; substrate.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               20 AA
                                                        English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 32;
Pred. No.
                                                                                                                                                                WK,
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43;
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The present sequence is hsRec2 peptide, residues 153-172, a substrate which was not phosphorylated by hsRec2. a human serine kinase. HsReci is in the same supergene family as the mammmalian protein having homologous pairing and strand transfer activities, RAD51 and was

HsRec2

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Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             isolated because of its homology to the homologous pairing and strand transfer protein of Ustilago maydis. In particular, hsRec2 phosphorylates several proteins that control the cell cycle, especially cyclin E and p53. The invention permits the phosphorylation of cell cycle control proteins at sites that are physiologically relevant. The invention can be practiced with either murine or human Rec2 or a muttein or chimera of these proteins. In particular the mutein has the sequence of a Rec2 kinase containing other than a Tyr at position 163. The invention comprises a method of phosphorylating a serine-containing substrate comprising incubating the substrate with ATP (adenosine triphosphate) and Rec2 kinase or a mammalian Rec2 and measuring the level of phosphorylation. The method is useful for discovering compounds which are specific antagonists or agonists of Rec2.
Ceramidase converts ceramide to sphingosine and a fatty acid, causes, or exacerbates, atopic dermatitis. The ceramidase gene, polypeptide, derived oligonuclectides and ceramidase-specific antibodies are used to prevent and/or treat atopic dermatitis. The gene and the polypeptide can be used as reagents for lipid engineering and for analyzing the structure and activity of ceramides. Sequences Y57308-313 represent partial fragments of the ceramidase protein, used for designing primers for amplifying the
                                                                                                                                                                                                                                                                   Okino N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                        The invention provides an alkaline ceramidase from P. aeruginosa. Ceramidase can be produced by standard recombinant methodology
                                                                                                                                                        Example 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pseudomonas
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                                                                                                                                                                                    New Pseudomonas aeruginosa alkaline diagnosis, treatment and prevention
                                                                                                                                                                                                                                  WPI; 2000-258590/23
                                                                                                                                                                                                                                                                                              (TAKI ) TAKARA SHUZO CO
                                                                                                                                                                                                                                                                                                                             20-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                           20-AUG-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ceramidase;
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                                                                                                                                                        Page 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ceramide; sphingosine;
eering; antidermatitis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              aeruginosa
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ceramidase partial fragment C-86
                                                                                                                                                                                                                                                                                                                              98JP-0234769
                                                                                                                                                                                                                                                                                                                                                           99EP-0116154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "unspecified"
                                                                                                                                                     32pp;
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                                                                                                                                                                                                                                                                                                LTD
                                                                                                                                                        English.
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Pred. No.
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                                                                                                                                                                                     ceramidase
of atopic of
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52;
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                                                                                                                                                                                       e gene, useful
dermatitis -
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RESULT
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Kuchler
                                                                                               is any
R43131.
                                                                                                    Inhibitors of rhinoviral HRV2 2A proteinase, are derived from the natural cleavage sequence given in R43119, comprising 10-16 amino acid residues and have the amino acid pattern RXXI/LXTXGP (where X 15 any amino acid residue). Such inhibitors are given in R43120-
                                                                                                                                                                                                                                                              04-MAR-1992;
30-MAY-1992;
                                                                             Sequence
                                                                                                                                                Claim 21; Fig
                                                                                                                                                                 Analysis of host cell shut-offs caused by picornaviruses inhibitor of rhinoviral HRV2 2A proteinase
                                                                                                                                                                                           WPI; 1993-322123/41.
                                                                                                                                                                                                                                                                                                          13-OCT-1993.
                                                                                                                                                                                                                                                                                                                          EP564801-A.
                                                                                                                                                                                                                                                                                                                                           Cleavage-site
                                                                                                                                                                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                                                                                                                      host cell shut-off;
                                                                                                                                                                                                                                                                                                                                                                                              Human rhinovirus;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
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rfaiktmgpkf 12
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                                 n 27.8
Similarity 45.9
5; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
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                                                                                                                                               23; 88pp;
                                                                                                                                                                                                                                                              92DE-4206769.
92DE-4217929.
                                                                                                                                                                                                                                                                                        93EP-0103159
                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers 8..9
                                                                                                                                                                                                                                                                                                                                                                                     HRV; infection; cleavage site;
f; picornavirus; proteinase.
                                                                                                                                                                                                                   Frasel L,
H, Skern
                                                                                                                                                                                                                                                                                                                                                                                                              proteinase inhibitor MMP-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        27.8%;
                                          .58
                                                                                                                                                English.
                                Score 30; DB Pred. No. 59; 4; Mismatches
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Pred. No.
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                                                                                                                                                                                                                                             INT GMBH.
                                                                                                                                                                                                                   Hartmuth K, Kowalski H;
F, Sommergruber W, Stadler
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              core 30; DB
ced. No. 38;
Mismatches
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                                  <u>ب</u>
                                                   Length 16;
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                                  Gaps
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RESULT

19

This sequence represents a diastereomer peptide of the invention. The peptides of the invention have: (a) cytolytic activity or pathogenic cells (pathogens and malignant cells not naturally present in the body); but (b) no haemolytic activity, or such activity only at a concentration significantly higher than that at which they lyse pathogens. The peptides, their complexes and mixtures are used to treat infections (caused by bacteria, fungl, protozoa, mycoplasma or viruses) or cancer, in human and veterinary medicine. Also, they can be used as preservatives for food, cosmetics and agricultural produce, or as agricultural pesticides. The absence of haemolytic activity (associated agricultural pesticides.

5 8

disturbance of alpha-helical structures) means that the peptides few if any toxic effects, and those that include D-aa will have

resistance to

Example

5; Page 47; 80pp;

English.

infections and cancer

Peptide(s) having selective cytolytic activity - against pathogens and mailgnant cells, but no haemolytic activity, used for treating

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Diastereomer peptide; infection; therapy; excitatory neurotoxin; Honey bee venom; pardaxin; cytolytic activity; cancer; non-haemolytic; preservative; agricultural produce; bacterial ce agricultural pesticide; cell wall lysis.
                                                                                                                                                                                                                                                                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                               Diastereomer
                                                                                                                                                                                                                                                                                                                                                                                                                           14-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                        W35218;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   W35218 standard; peptide;
                                                                                                                          WPI; 1997-435088/40
                                                                                                                                      Oren Z,
                                                                                                                                                               22-FEB-1996;
                                                                                                                                                                                        28-AUG-1997.
                                                                                                                                                                                                     WO9731019-A2
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                                                                                                                                                                           20-FEB-1997;
                                                                                                                                                   YEDA
                                                                                                                                      Shai Y;
                                                                                                                                                   RES
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13
                                                                                                                                                               96IL-0117223.
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Misc-difference ll
       Peptide(s) having selective cytolytic activity -
and malignant cells, but no haemolytic activity,
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                                                                                                                                                                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                            Honey bee venom; pardaxin; cytolytic activity; cancer; non-haemolytic; preservative; agricultural produce; bacterial cell lysis; agricultural pesticide; cell wall lysis.
                                                                                                                                                                                                                                                                                                                                                                                                        Diastereomer peptide; infection; therapy; excitatory neurotoxin;
                                                                                                                                                                                                                                                                                                                                                                                                                        Diastereomer peptide 71.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              W35210 standard; peptide; 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cytotoxic random copolymers of pardaxin, each has a specific spectrum of activity, allowing selection of agents for particular applications. Since these random copolymers induce total lysis of bacterial cell walls, resistance to them is unlikely to develop.
infections and cancer
                                 WPI; 1997-435088/40.
                                                                    (YEDA ) YEDA RES
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ses 4; Conserv
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       against pathogens
used for treating
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This sequence represents a diastereomer peptide of the CC invention. The peptides of the invention have: (a) cytolytic activity on convention. The peptides of the invention have: (a) cytolytic activity on convention of pathogens and malignant cells not naturally present in cC concentration significantly higher than that at which they lyse concentration significantly higher than that at which they lyse conventions (caused by bacteria, fungi, protozoa, mycoplasma or viruses) or cancer, in human and veterinary medicine. Also, they can be used as creservatives for food, cosmetics and agricultural produce, or as cc preservatives for food, cosmetics and agricultural produce, or as cc preservatives for food, cosmetics and agricultural produce, or as cc preservatives for sold sended as the disturbance of alpha-helical structures) means that the peptides can foreased resistance to proteolytic degradation. Non-haemolytic, creativity, allowing selection of agents for particular applications. Since these random copolymers of pardaxin, each has a specific spectrum of creativity, allowing selection of agents for particular applications. Since constitute the copy of these random copolymers induce total lysis of bacterial cell walls, creating the content of them is unlikely to develop.
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Best Local Similarity
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                                                                                                        New non-haemolytic cytolytic agent useful in treating cancer infections - is a peptide comprising a moiety which disrupts continuity of an alpha-helical structure
                                                                                                                                                                                                                                                                                                                                                                                                                            Non-haemolytic; cytolytic; selective cytolytic activity; cancer; infection; disinfectant; contact lens wetting sol preservative; pesticide; fungicide; bactericide.
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                                                                                                                                                                                                                                       (YEDA ) YEDA RES & DEV CO LTD.
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                                                                            Page 46; 126pp;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              pathogen;
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The present peptide is used to produce the agents of the invention. The specification describes a non-haemolytic, cytolytic agent, which is a peptide, a complex of bundled peptides, a mixture of peptides or a random peptide copolymer. The agent has a selective cytolytic activity on

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                      The present peptide is used to produce the agents of the invention. The specification describes a non-haemolytic, cytolytic agent, which is a peptide, a complex of bundled peptides, a mixture of peptides or a randc peptide copolymer. The agent has a selective cytolytic activity on pathogenic cells. The agent is selected from a cyclic derivative of a peptide which has a net positive charge greater than 1, comprises L-amin acid residues and/or D-amino acid residues and comprises an alpha-helix breaker moiety, or a peptide (or cyclic derivative of this) which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   breaker moiety, or a peptide (or cyclic derivative of this) which (comprises L-amino acid residues and D-amino acid residues, has a net positive charge greater than 1 and has an amino acid sequence such that a corresponding amino acid sequence comprising only L-amino acid residues is not found in nature. The cytolytic agents may be used for treatment of cancer or for treatment of several diseases caused by pathogens, including bacterial, fungal, viral, mycoplasma and protozoan infections. They may be used in both human and veterinary medicine. They may also be used as disinfectants for destruction of microorganisms, i.e. in solutions for wetting contact lenses, as preservatives, e.g., in the comments of the contact lenses, as preservatives, e.g., in the
                                                                                                                                                                                                                                                                                                                                                                   New non-haemolytic cytolytic agent useful in treating cancer infections - is a peptide comprising a moiety which disrupts continuity of an alpha-helical structure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Non-haemolytic; cytolytic; selective cytolytic activity; pathogen; cancer; infection; disinfectant; contact lens wetting solution; preservative; pesticide; fungicide; bactericide.
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                                                                                                                                                                                                                                                                                                             46;
                                                                                                                                                                                                                                                                                                      126pp;
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residues and D-amino acid
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residues, has a net
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                                                                                            L-amino
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Sequences shown in w80785 to w80793 represent peptides from DPI produced by endoprotease digestion, used for peptide sequencing. The invention provides sequences encoding Dictyostellum DPI, human DPI (hDPI) and Dictyostellum cyclophilin (DdCyP2) which are bisphosphonate binding proteins. The invention also provides methods for purifying and producing such bisphosphonate binding proteins. The bisphosphonate binding protein, or an antibody which binds to the binding protein can be used in the diagnosis of calcium metabolism disorders. They can also be used to treat

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                                                                                                                              Bisphosphonate binding protein - used disorders, including bone metabolism, metastases, and osteoporosis
                                                                                                                                                                                                                                                                                                                                                                                                                                         Dictyostelium; DP1; discoidin I: bisphosphonate binding protein; osteoporosis; hypercalcaemia; bo
                                                                                                         Example 1;
                                                                                                                                                                                                                                                                          14-FEB-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                    Dictyostelium discoideum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Peptide 6 from D. discoideum DP1 protein.
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                                                                                                                                                                                                      Russell
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(UYSH-) UNIV SHEFFIELD MED SCHOOL.
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4; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                         discoidin II; human DP1; hDP1; cyclophilin; DdCyP2;
ing protein; calcium metabolism; cyclosporine;
calcaemia; bone metabolism; bone metastases.
                                                                                                         98pp;
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J, Xiong
                                                                                                         English.
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                                                                                                                                         to treat calcium metabolism hypercalcaemia, bone
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                        Matches
                                                                                                                                                                                                    This sequence represents an immunogenic polypeptide of the invention, are is capable of inducing an immune response in vivo against a pathogenic microorganism. The peptides can be used for pharmaceutical compositions for in vivo protection against pathogenic microorganisms. Antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    calcium metabolism disorders, where the treatment is for the reg of bone metabolism, hypercalcaemia, bone metastases, and osteopo especially by regulation of bone metabolism via interaction with
                                                                                                                                              for in vivo protection against pathogenic microorganisms. Antibodies recognising the peptides are useful for diagnosing microorganism infections. The peptides induce a stronger protective immune response to pathogenic microorganisms compared to prior art peptides. Preparation is cheaper and less time is consumed than in preparation of polysaccharide
                                                                                                                                                                                                                                                                                                                                                                             Cortese R, F
Sansonetti P;
                                                                                                                                                                                                                                                                                                           New immunogenic polypeptide which induces an immune response in vivo useful for inducing a stronger protective immune response against
                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Immunogenic peptide; epitope unit; immune response; in vivo pathogenic microorganism; microorganism infection; diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cyclosporine.
                                                                                                        Sequence
                                                                                                                                                                                                                                                                    Disclosure; Fig 5; 64pp; English.
                                                                                                                                                                                                                                                                                               pathogenic microorganisms
                                                                                                                                                                                                                                                                                                                                                 WPI; 1999-205131/17
                                                                                                                                                                                                                                                                                                                                                                                                                 (INRM ) INSERM INST NAT SANTE & RECH MEDICALE. (INSP ) INST PASTEUR.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bacterial immunogenic peptide clone 18c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Y01008;
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11 PRYFNOL | :|||:
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                                                                                                                                  carbohydrate antigens.
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                                        Conservative
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                                                   26.9%;
57.1%;
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                                       2
                                       Score 29; DB Pred. No. 2.1e 2; Mismatches
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                         Phalipon
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                                                                                                                       Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                          This invention describes a method which uses the CCT (eukaryotic type II chaperonin) complex or part of it, for identifying a binding agent that can occupy a substrate-binding site (SBS) on the CCT complex. By binding to the CCT complex, the binding agents block an SBS so that biological activity of the CCT complex is affected, particularly its ability to fold substrates such as actin, tubulin and cyclin. The binding agents are useful for treatment of cancer, particularly when used in combination with an anticancer drug, or viral infections. Nucleic acid fragments are used to screen for agents, e.g. binding agents that modulate interaction between the CCT complex and a protein that is to be folded. The binding agents may target cells that are actively synthesising tubulin etc. (unlike known microtubule-stabilising agents that affect all cells), so should have reduced toxicity for normal cells. W92550-W92628 are
                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Identifying specific binding agents for substrate binding site in CCT chaperonin complex - also new peptide binding agents and their mimetics, and peptides containing a specific CCT binding site, used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W92558 standard;
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agent; substrate-binding site; SBS; substrate folding; actin;
treatment; cancer; anticancer drug; viral infection; screenin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Liou AK,
                                                                                                                                                                                                                                                                                         15
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                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                         AA;
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Pred. No. 82;
1; Mismatches
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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                   and is derived by analysis of the total score distribution.
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protein search, using sw model
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Query
Match Length
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1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
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109
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pir4:*
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pir2:*
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                           A61612
PC2320
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PS0276
S70348
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S10807
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23.147 Million cell updates/sec
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               hypothetical prote
Ig heavy chain CRD
UDPglucose--glycog
photosystem I 8.0K
                                                    gene HEXA protein
allatostatin - tob
multicatalytic end
TCR delta Chain V-
multicatalytic end
exo-poly-alpha-gal
amidase (EC 3.5.1)
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cytochrome P450.CM
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       photosystem I 8
39k major outer
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ALIGNMENTS

I64828 RESULT

gene HEXA protein - human (fragment)
(;Species: Homo sapiens (man)
(;Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 21-Jul-2000
(;Accession: I64828
R;Boles, D.J.; Proia, R.L.
Am. J. Hum. Genet. 56, 716-724, 1995
A;Title: The molecular basis of HEXA mRNA deficiency caused by the most common Tay-Sa
A;Reference number: I51882; MUID:95193801
A;Accession: I64828

GB:S76982; NID:g912780; PIDN:AAD14242.1; PID:g4261942

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submitted to JIPID, April 1993
A; Reference number: PS0206
A; Accession: PS0276
A; Molecule type: protein
A; Experimental source: leaf, chlorophyll,
C; Keywords: phosphotransferase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Status: preliminary; translated from GB/EMBL/DDBJ A;Molecule type: mRNA A;Residues: 1-25 <RES> A;Cross-references: GB:S75982; NID:g912780; PIDN:AAI C:Genetics:
ş
                                                                                                                                                                                                                                                                       phosphoribulokinase (EC 2.7.1.19) - rice (strain Nihonbare) (fragment)
C;Species: Oryza sativa (rice)
C;Decies: Oryza sativa (rice)
C;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 23-Mar-1995
C;Accession: PS0276
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A;Cross-references: GDB:120040; OMIM:272800
A;Map postition: 15q23-15q24
C;Superfamily: beta-hexosaminidase
                    Query Match
Best Local Similarity
watches 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 28.4%;
Best Local Similarity 50.0%;
Matches 6; Conservative
 13 MVGLAAD 19
                                                                                                                                                                                                                                                                                                                                                                                                                 1 PRYFNQLSTGLD 12
| | |::| | |
1 PWYLNRISYGPD 12
                                     Conservative
                                                      25.7%;
                                  : Score 28; DB
; Pred. NO. 2.1e
2; Mismatches
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Pred. No. 1.1e+02;
2; Mismatches 4
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                                                      DB 2;
2.1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 2; Length 25;
                                     0; Indels
                                                                      Length 15;
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                                     Gaps
                                     0
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N;Alternate names: probable lipocortin
C:Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C:Date: 19-Mar-1997 #sequence_revision 13-Sep-1998 #text_change 13-Sep-1998
C:Accession: $10807
R;Toker, A.; Ellis, C.A.; Sellers, L.A.; Aitken, A.
Eur. J. Biochem. 191, 421-429, 1990
A;Title: protein kinase C inhibitor proteins. Purification from sheep brain and a;Reference number: $10804; MUID:90345949
A;Accession: $10807
A;Accession: $10807
A;Residues: 1-16 <TOK>
A;Experimental source: brain
C;Superfamily: 14-3-3 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    urinary tract stone matrix protein 10, 42K - human (fragment)
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 12-Apr-1995 #sequence_revision 12-Apr-1995 #text_change 12-Apr-1995
C;Accession: H56046
R;Binette, J.P.; Binette, M.B.; Gawinowicz, M.A.; Kendrick, N.
submitted to the Protein Sequence Database, February 1995
A;Description: Isolation, characterization and sequence of stone proteins.
A;Reference number: A56046
A;Accession: H56046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 3
$70348
alpha-2u-globulin - rat (fragment)
N;Alternate names: alpha-2-euglobulin; major urinary protein
C;Species: Rattus norvegicus (Norway rat)
C;Apate: 19-Mar-1998 #sequence_revision 17-Apr-1998 #text_change 17-Mar-1999
C;Accession: $70348
R;Bayard, C.; Holmquist, L.; Vesterberg, O.
Biochim. Biophys. Acta 1290, 129-134, 1996
A;Title: Purification and identification of allergenic alpha(2u)-globulin species (A;Accession: $70347; MUID:96254071
A;Accession: $70348
A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-13 <BIN>
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A;Residues: 1-25 <BAY>
C;Superfamily: lipocalin; lipocalin homology
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Pred. No. 3.6e+02;
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2.6e+02;
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cytochrome P450 CMLb (EC 1.14...) - crab-eating macaque (fragment) C;Species: Macaca fascicularis (crab-eating macaque) C;Date: 09-Jun-1994 #sequence_revision 07-Nov-1997 #text_change 05-C;Accession: S36874 R;Ohmori, S.; Horie, T.; Guengerich, F.P.; Kiuchi, M.: Kitada. M.
                                                                                     RESULT
S36874
                                                                                                                                                                                                                                                                                                                                                                                                   gene CTLA-1 protein - western wild mouse (fragment)
C;Species: Mus spretus (western wild mouse)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 22-Jun-1999
C;Accession: I49414
R;KO, M.S.; Wang, X.; Horton, J.H.; Hagen, M.D.; Takahashi, N.; Maezaki, Y.;
Mamm. Genome 5, 349-355, 1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Gene: CTLA-1
C;Superfamily: trypsin;
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A;Residues: 1-21 <RES>
A;Cross-references: EMBL:U05708; NID:g497037; PIDN:AAB60471.1; PID:g497038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Title: Genetic mapping of 40 cDNA clones on A;Reference number: I48934; MUID:94319082 A;Accession: I49414 A;Status: preliminary; translated from GB/EMBLA;Status: preliminary;
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I49414
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                                                                                                                                                                                                                                                                                                       A; Cross-references: EMBL: X92857
A; Note: the nucleotide sequence was submitted
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A; Residues: 1-21 <WEN>
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Pred. No.
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Pred. No. 6.4e+02;
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                                      #text_change 05-Mar-1999
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Blochem. Biophys. Res. Commur
A;Title: Identification of di
A;Reference number: JC2057; N
A;Accession: JC2058
A;Molecule type: DNA
A;Residues: 1-19 <FEN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                major outer membrane protein - Haemophilus somnus (fragment) C;Species: Haemophilus somnus C;Date: 19-Dec-1993 #sequence_revision 18-Nov-1994 #text_charC;Accession: A49226
                 RESULT
JC2059
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JC2058
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C;Species: Nicotiana tabacum (common tobacco)
C;Date: 30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change 20-Aug-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Infect. Immun. 61, 91-96, 1993
A; Title: Purification and partial characterization
A; Reference number: A49226; MUID:93114910
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A;Accession: S36874
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R: Feng, X.H.; Kung, S.D.
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 homeobox 4 protein
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Matches 6; Conserv
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Best Local
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common tobacco (fragment)
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3; Mismatches
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Pred. No. 5.6e+02;
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C;Species: Nicotiana tabacum (common tobacco)
-C;Date: 30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change 23-Mar-1995-7C;Accession: JC2059
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Blochem. Blophys. Res. Commun. 198, 1012-1019, 1994
A;Title: Identification of differentially expressed
A;Reference number: JC2057; MUID:94161708
A;Accession: JC2059
A; Molecule type: DNA
A; Restdues: 1-20 <BER>
A; Cross-references: EMBL: X07540; NID: 949835;
A; Note: the authors translated the codon GAC
                                                                               R; Bernards, A.; Paskind, M.; Baltimore, D. Oncogene 2, 297-304, 1988
A; Title: Four murine c-abl mRNAs arise by A; Reference number: S00771; MUID:88202920
A; Accession: S00774
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S00774
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                                                                                                                                                                                      kinase-related transforming protein (abl) (EC 2.7.1.-) type II - mouse (fragment) (;Species: Mus musculus (house mouse) (C;Date: 30-Sep-1989 #sequence_revision 30-Sep-1989 #text_change 18-Jun-1999 C;Accession: S00774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Superfamily: human cytochrome P450 CYP2D6; cytochrome P450 homology
C;Reywords: heme; microsome; monooxygenase; oxidoreductase; transmemb
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Eur. J. Biochem. 204, 641-648, 1992
A;Title: Purification of two cytochrome P450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C; Keywords:
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A; Residues: 1-19 <FEN>
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70.0%;
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Pred. No. 8.5e+02;
""" anatches 0;
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Pred. No. 9e+02;
3; Mismatches
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                                                                                                                        usage of
  PIDN:CAA30413.1; PID:g49836 for residue 12 as His
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                                                                                                                          two transcriptional promoters
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Superfamily:

human

protein-tyrosine kinase abl;

protein kinase homology; SH2 homolo

C; Keywords: alternative splicing; ATP;

phosphotransferase

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C; Genetics: A; Gene: 9.5 C; Function:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R:Obokata, J.; Mikami, K.; Hayashida, N.; Nakamura, M.; Sugiura, M. Plant Physiol. 102, 1259-1267, 1993
A:Title: Molecular heterogeneity of photosystem I. psaD, psaE, psaF A; Reference number: PQ0667; MUID:94105345
A; Accession: PQ0690
A; Molecule type: protein
A; Molecule type: protein
A; Residues: 1-23 COBO'
C; Superfamily: photosystem I chain V
C; Keywords: chloroplast; photosynthesis; photosystem I; thylakold
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A;Title: Neuron-specific protein gene product 9.5 (PGP 9.5) is also expressed A;Reference number: S17561; MUID:92008646
A;Accession: S17561
RESULT
PT0088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N;Alternate names: 26k protein; gene product 9.5; ubiquitin carboxyl-terminal esterase C;Species: Bos primigenius taurus (cattle)
C;Date: 19-Mar-1997 #sequence_revision 13-Sep-1998 #text_change 11-Jan-2000
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C; Species: Nicotiana tabacum (common tobacco)
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Best Local :
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Pred. No. 1.1e+03;
3; Mismatches 7
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Pred. No. 1e+03;
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R;Tougou, K.
submitted to JIPID, :
A;Reference number: F
A;Accession: PT0088
                                                                                                 allatostatin - tobacco hornworm
C;Species: Manduca sexta (tobacco hornworm)
C;Date: 21-Jul-1995 #sequence_revision 21-Jul-1995 #text_change 11-Jul-1997
C;Accession: A61612
R;Kramer, S.J.; Toschi, A.; Miller, C.A.; Kataoka, H.; Quistad, G.B.; Li, J
Proc. Natl. Acad. Sci. U.S.A. 88, 9458-9462, 1991
A;Title: Identification of an allatostatin from the tobacco hornworm Manduc. A;Reference number: A61612; MUID:92052112
A;Accession: A61612
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Am. J. Hum. Genet. 56, 716-724, 1995
A;Title: The molecular basis of HEXA mRNA
A;Reference number: I51882; MUID:95193801
A;Accession: I64829
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A;Residues: 1-25 <TOU>
C;Keywords: phosphoric triester hydrolase
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N;Alternate names: A-esterase; Aryltriphosphatase; Organophosphate hydrolas
C;Species: Rattus norvegicus (Norway rat)
C;Date: 07-Jul-1997 #sequence_revision 18-Jul-1997 #text_change 18-Jul-1997
C;Accession: PT0088
A;Molecule type: protein
A;Residues: 1-15 <KRA>
C;Keywords: neuropeptide; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic ac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Gene: GDB:HEXA
A;Cross-references: GDB:120040; OMIM:272800
A;Map position: 15q23-15q24
C;Superfamily: beta-hexosaminidase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: GB:S76984; NID:g912781; PIDN:AAD14243.1; C;Genetics:
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C;Species: Homo sapiens (man)
C;Date: 29-May-1998 #sequence
C;Accession: 164829
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                                                                                 A; Status: preliminary
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A; Residues: 1-12 < RES>
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Matches 4; Conserv
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1; Mismatches
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Pred.
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      acid (Gln) #status
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7.5e+02;
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C;Species: Homo sapiens (man)
C;Date: 21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change 26-May-2000
C;Accession: PC2320
R;Kristensen, P.: Johnsen, A.H.; Uerkvitz, W.; Tanaka, K.; Hendil, K.B.
Blochem. Blophys. Res. Commun. 205, 1785-1789, 1994
A;Title: Human proteasome subunits from 2-dimensional gels identified by partial sequence A;Reference number: PC2315; MUID:95110324
A;Accession: PC2320
multicatalytic endopeptidase complex (EC 3.4.99.46) subunit 13 - bovine (fr: C;Species: Bos primigenius taurus (cattle) C;Date: 04-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 26-May-2000 C;Accession: F42762 R;Dick, L.R.; Moomaw, C.R.; Pramanik, B.C.; DeMartino, G.N.; Slaughter, C.A Biochemistry 31, 7347-7355, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Reference number: A49037; MUID:92164730 A;Accession: G49037 A;Status.
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                                                                                                                 RESULT
F42762
                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: GB:S90657; NID:g246300; PIDN:AAB21553.1; PID:g246301 A;Experimental source: dendritic epidermal T-cell lines A;Note: sequence extracted from NCBI backbone (NCBIN:90657, NCBIP:90668)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TcR delta chain V-D-J region - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 21-Jan-1994 #sequence_revision 18-Nov-1994 #text_change 05-Nov-1999
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C;Comment: The proteasome consists of subunits of 21K-30K arranged
C;Superfamily: multicatalytic endopeptidase complex chain C9
C;Keywords: hydrolase; proteinase.
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A; Residues: 1-18 <EZQ>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C; Accession: G49037
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Matches 5
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exo-poly-alpha-galacturonosidase (EC 3.2.1.82) - Clostridium thermosaccharolyticum N;Alternate names: exo-poly-alpha-galacturonate hydrolase C;Species: Clostridium thermosaccharolyticum, Clostridium tartarivorum C;Date: 21-Jan-1994 #sequence_revision 18-Nov-1994 #text_change 06-Dec-1996 C;Accession: A48968
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A48968
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A;Accession: F42762
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-20 <DIC>
                                                                               A; Molecule type: mRNA
A; Residues: 1-25 <SOU>
C; Keywords: hydrolase
                                                                                                                                               Gene 116, 99-104, 1992
A;Title: Cloning and primary structure of the wide-spectrum amidase from Brevibacteri A;Reference number: JC1174; MUID:92331957
A;Accession: PC1105
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R; Soubrier,
                                                                                                                                                                                                                                                      amidase (EC 3.5.1.4) - Brevibacterium sp. (fragment)
C;Species: Brevibacterium sp.
C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 16-Jul-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: protein A; Residues: 1-23 < VAN>
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                                                                                                                                  A; Status: preliminary
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C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C;Accession: PT0234
R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain diversity and A;Reference number: PT0222; MUID:91108337
A;Accession: PT0234
A;Molecule type: DNA
A;Residues: 1-17 < YAMN
A;Residues: 1-17 < YAMN
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Search completed: February 5, 2001, 10:49:31 Job time: 744 sec
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C; Keywords: heterotetramer;
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A;Residues: 1-17 <HUG>
A;Cross-references: GB:U56698; EMBL:X89725; NID:g1314836; PID:g1322246
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PT0234
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ubmitted to the EMBL Data Library, July 1995
percription: The moss Ceratodon purpureus contains and expresses a second, conventional, Reference number: $58129
percession: $58129
percession: $58129
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Best Local Similarity 55.6
Matches 5; Conservative
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Species: Ceratodon purpureus
Date: 13-Jan-1996 #sequence_revision 01-Mar-1996 #text_change 31-Oct-1997
Accession: S58129
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amer; immunoglobulin
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55.6%;
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KPP2_SELMI
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LEO1_BIOGL
CPA7_PAPSP
UBL1_BOVIN
ALLS_MANSE
OXYL_SCYCA
PPBH_PSCAE
OMP1_ACTAC
KAD_BACLI
PGO_XENCA
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ALIGNMENTS

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RESULT 1

KPP1_SELMI STANDARD; PRT; 14 AA. AC P2593;
DT 01-MAY-1992 (Rel. 22, Created)
DT 01-MAY-1992 (Rel. 22, Last sequence update)
DT 01-MAY-1992 (Rel. 22, Cast sequence update)
DT 01-MAY-1992 (Rel. 22, Cast sequence update)
DT 01-MAY-1992 (Rel. 22, Cast sequence update)
DE (FRAGMENT).
Selenastrum minutum.
OC Selenastrum minutum.
OC Selenastraceae; Selenastrum.
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KPPZ_SELMI STANDARD

KPPZ_SELMI STANDARD

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01-MAY-1992 (Rel. 22, L
01-MAY-1992 (Rel. 22, L
01-MAY-1992 (Rel. 22, L
PHOSPHORIBULOKINASE, 41
(FRAGMENT).
SEQUENCE.
Lin M., Turpin D.H.;
Purification and molecular and
"Purification and molecular and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Selenastrum minutum.
Eukaryota; Viridiplantae; Cl
Selenastraceae; Selenastrum
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PROSITE; PS00567; PHOSPHORIBULOKINASE; PARTIAL.
Transferase; Kinase; Calvin cycle; ATP-binding.
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41 KDA SUBUNIT (EC 2.7.1.19)
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     immunological characterization of the green alga Selenastrum minutum
  the green
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RESULT 4
LE01_BIOGL
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P80742;
01-OCT-2000 (
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HEMOLYMPH 65
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01-NOV-1988
30-MAY-2000
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Rana rugosa (Frog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Eukaryota; Metazohia; Anura; Neobatrachia; Ranoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RANR_RANRU
P08952;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Plant Physiol. 98:82-88(1992).

-i- CATALYTIC ACTIVITY: ATP + D-RIBULOSE 5-PHOSPHATE - ADE

-i- PATHWAY: CALVIN CYCLE.

-i- PATHWAY: CALVIN CYCLE.

-i- SUBUNIT: HETERODIMER OF A 40 KDA AND A 41 KDA SUBUNIT.

-i- SIMILARITY: BELONGS TO THE PHOSPHORIBULOKINASE FAMILY.
                     Biomphalaria glabrata (Bloodfluke planorb).
Eukaryota; Metazoa; Mollusca; Gastropoda; Pulmonata;
Planorbidae; Biomphalaria.
                                                                                                                                                                                                                                                                                          PROSITE; PS00257; BOMBESIN; Bombesin family; Amidation. MOD_RES 17 17
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Erspamer V., Erspamer G.F., Mazzanti G., Endean R.;
Erspamer Y., Erspamer G.F., Mazzanti G., Endean R.;
Comp. Biochem. Physiol. 77C:99-108(1984).
-i- SIMILARITY: BELONGS TO THE BOMBESIN/NEUROMEDIN B/RANATENSIN
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(Rel. 09, Last sequence up
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KDA LECTIN BG01 (FRAGMENT)
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se; Calvin cycle; ATP-binding.
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Pred. No.
                                                                 (FRAGMENT).
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3A876B35A581863E CRC64;
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Ranidae; Rana
                                  Basommatophora;
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RESULT 5
CPA7_PAPSP CPA7_PAPSP ID 7
CPA7_PAPSP STANDARD; PRT; 20
AC P80055;
DT 01-FEE-1994 (Rel. 2%, Created)
DT 01-FEE-1994 (Rel. 2%, Last sequence updat
DT 15-JUL-1999 (Rel. 3%, Last sequence updat
DT 15-JUL-1999 (Rel. 3%, Last annotation upc
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"Purification of two cytochrome P450 isozymes related to CYP2A (CYP3A) gene families from monkey (baboon, Papio papio) liver microsomes. Cross reactivity with human forms.";
Eur. J. Biochem. 204:641-648(1992).
-!- FUNCTION: EXHIBITS A HIGH COUMARIN 7-HYDROXYLASE ACTIVITY.
-!- FUNCTION: EXHIBITS A HIGH COUMARIN 7-HYDROXYLASE ACTIVITY.
-!- CAPALYTIC ACTIVITY: RH + REDUCED FLAVOPROTEIN + O(2) - ROH.
OXIDIZED FLAVOPROTEIN + H(2))O.
-!- SUBCELLULAR LOCATION: MEMBRANE-BOUND. ENDOPLASMIC RETICULUM
-!- INDUCTION: BY PHENOBARBITAL.
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NON_TER
SEQUENCE
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MEDLINE-97385165; PubMed-9238039;

Adema C.M., Hertel L.A., Miller R.D., Loker E.S.;

Adema C.M., Hertel L.A., Miller R.D., Loker E.S.;

Tamily of fibrinogen-related proteins that precipitates parasite-
derived molecules is produced by an invertebrate after infection.";

Proc. Natl. Acad. Sci. U.S.A. 94:8691-8696(1997).
                                                                                                                                                                                                                                          INTERPRO; IPR001128; -.
PROSITE; PS00086; CYTOCHROME_P450; PARTI
OXIGOTeductase; Monooxygenase; Electron
Microsome; Endoplasmic reticulum.
UNSURE 14 14
NON_TER 20 20
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SUBCELLULAR LOCATION: SECRETED
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Similarity 38.5%;
5; Conservative
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Kramer S.J., Toschi A., Miller C.
Li J.P., Carney R.L., Schooley D.
"Identification of an allatostati
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -!- SUBCELLULAR LOCATION: CYTOPLASMIC.
-!- TISSUE SPECIFICITY: NEURONS AND CELLS OF THE DIFFUS
-NEUROEDOCRINE SYSTEM AND THEIR TUMORS.
-!- SIMILARITY: BELONGS TO PEPTIDASE FAMILY C12; ALSO I
FAMILY 1 OF UBIQUITIN CARBOXYL-TERMINAL HYDROLASES
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FEBS Lett. 290:131-134(1991).
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UBIQUITIN CARBOXYL-TERMINAL HYDROLASE ISOZYME L1
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  schi A., Miller C.A.
R.L., Schooley D.A.
of an allatostatin
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the tobacco hornworm Manduca
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MOD_RES
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DISULFID
MOD_RES
SEQUENCE
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-1. FUNCTION: STRONGLY INHIBITS JUVENILE HORMONE BIOSYNTHESIS
BY THE CORPORA ALLATA FROM FIFTH-STADIUM LARVAE AND ADULT
-1- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
                                                            Pseudomonas aeruginosa.
Bacteria; Proteobacteria;
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01-JUN-1994 (Rel. 29, Last
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Chauvet J., Rouille
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Elasmobranchii; Galo
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zoa; Chordata; Craniata; Vertebrata; Chondrichthyes;
Galeomorphii; Galeoidea; Carcharhiniformes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Scyliorhinus.
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3.1.3.1) (H
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Pred. No. 5.2e
1; Mismatches
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                                                            subdivision;
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5.2e+02;
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8.9e+04
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                                                              Pseudomonadaceae;
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Best Local S
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Matches 4
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              P35140;
01-FEB-1994
01-FEB-1994
15-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    alkaline phosphatases from Pseudomonas aeruginosa.";
FEMS Microbiol. Lett. 106:281-286(1993).
-i- FUNCTION: HAS ONLY A PHOSPHONONOSTERASE ACTIVITY.
-i- CATALYTIC ACTIVITY: AN ORTHOPHOSPHORIC MONOESTER +
ALCOHOL + ORTHOPHOSPHATE (AT A HIGH PH OPTIMUM).
-i- COFACTOR: METALLOENZYME CONTAINING TWO ZINC ATOMS F
                                                                                                                                                                                                                                                                                Kokeguchi S., Kato K., Nishimura F., Kurihara H., Murayama Y.; "Isolation and partial characterization of a 39 kDa major outer membrane protein of Actinobacillus actinomycetemcomitans Y4."; FEMS Microbiol. Lett. 61:85-89(1991). PIR: A54538; A54538.
                                                                                                                                                                                                                                                                                                                                                                                                                                               01-FEB-1991 (Rel. 17, Created)
01-FEB-1991 (Rel. 17, Last sequence update)
15-UUL-1998 (Rel. 36, Last annotation update)
39 KDA MAJOR OUTER MEMBRANE PROTEIN (FRAGMENT).
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   ADENYLATE
                                                               KAD_BACLI
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-!- DEVELOPMENTAL STAGE: EXPRESSED CONSTITUTIVELY.
-!- SIMILARITY: BELONGS TO THE ALKALINE PHOSPHATASE
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MEDLINE-93202452; PubMed-8454193;
                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                      Outer membrane; Transmembrane; Porin.
                                                                                                                                                                                                                                                                                                                                                MEDLINE=91169244; PubMed=2004699;
                                                                                                                                                                                                                                                                                                                                                             STRAIN-Y4;
                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                Actinobacillus.
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NON_TER 19 19
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             (Rel. 28, Created)
(Rel. 28, Last sequence (Rel. 36, Last annotation)
                                                                                                                                                                                                                                             20 AA;
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                                                                STANDARD; -
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28, Last sequence update)
36, Last annotation updat
(EC 2.7.4.3) (ATP-AMP TRAN
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Pred. No. 9.7e
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Pred. No. 1e+03;
5; Mismatches
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P TRANSPHOSPHORYLASE) (FRAGMENT).
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9.7e+02;
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Best Local Similarity
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P39080;
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Moore K.S., Bevins
Eck H., Zasloff M.;
                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata;
Amphibia; Batrachia; Anura; Me
                                                                                                                                                                                                                                                                                                                                                        ANTIMICROBIAL PEPTIDE PGQ.
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NON_TER
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Bacillus licheniformis.

Bacteria; Firmicutes; Bacillus/Clostridium group;

Bacillus/Staphylococcus group; Bacillus.
                                                                                                                                                                                                                                                                                                                                                                                       01-FEB-1995 (Rel.
01-FEB-1995 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          analysis of nine members of the Se
Mol. Gen. Genet. 235:147-152(1992)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Cloning and molecular characterization of the secy Bacillus licheniformis and Staphylococcus carnosus: analysis of nine members of the Secy family.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE-93062802;
Tschauder S., Dri
                                                                                                                                                                                                                   TISSUE-STOMACH;
                                                                                                                                                                                                                                          SEQUENCE.
                                                                                                                                                                                                                                                                                                                                               Xenopus laevis (African
                                                                                                                                                                                                                                                                                                                                                                                                                                   01-FEB-1995
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                       . 31, Created)
. 31, Last sequence . 31, Last annotation.
                                                                                                                                                                       PubMed=1717472;
s C.L., Brasseur M.M., Tomassini N.,
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Mesobatrachia;
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Pred. No. 1.2e
2; Mismatches
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Antibiotic; Amph
SEQUENCE 24 AA
                                                                                                                       P56234;
15-JUL-1998 (Rel. 36, Created)
15-JUL-1998 (Rel. 36, Last sequence update)
15-DEC-1998 (Rel. 37, Last annotation update)
CAERIN 2.2 [CONTAINS: CAERIN 2.2.1].
Litoria gilleni, and Litoria caerulea.
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eughphibia; Batrachia; Anura; Neobatrachia; Bufonoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Stone D.J.M., Waugh R.J., Bowie J.H., Wallace J.C., Tyler M.J.;
"Peptides from Australian frogs. Structures of the caerins and
caeridin from Litoria splendida.";
J. Chem. Soc. Perkin Trans. 1:3173-3178(1992).
-!- FUNCTION: ANTIBACTERIAL PEPTIDE, THAT ADOPTS AN ALPHA HELICAL
CONFORMATION WHICH CAN DISRUPT BACTERIAL MEMBRANES. EACH CAER:
DISPLAYS A DIFFERENT ANTIMICROBIAL SPECIFICITY.
-!- TISSUE SPECIFICITY: SECRETED BY THE SKIN PAROTOID AND/OR ROSTI
SEQUENCE, AND MASS SPECTROMETRY OF CAERIN 2.2. SPECIES-L.CAERULEA; TISSUE-PAROTOID GLAND; Stone D.J.M., Waugh R.J., Bowie J.H., Wallace J.C., "Peptides from Australian frogs. The structures of Litoria caerula."; J. Chem. Res. 138:910-936(1993).
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; El
Amphibia; Batrachia; Anura; Neobatrachia; Bufonoidea;
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SEQUENCE
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ic; Amphibian skin.
25 AA; 2394 MW; DDO
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24 AA; 2457 MW;
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a; Hylidae;
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SEQUENCE, AND MASS SPECTROMETRY OF CAERIN 2.2.1.
SPECIES-L.GILLENI; TISSUE-PAROTOID GLAND;
Waugh R.J., Stone D.J.M., Bowle J.H., Wallace J.C., Tyler M.J.;
Waugh R.J., Stone D.J.M., Bowle J.H., Wallace J.C., Tyler M.J.;
"Peptides from Australian frogs. The structures of the caerins and cearridins from Litcoria gilleni.";
Caerridins from Litcoria gilleni.";
J. Chem. Res. 139:937-961(1993).
-i- FUNCTION: ANTIMICROBIAL PEPTIDE, THAT ADOPTS AN ALPHA HELICAL CONFORMATION WHICH CAN DISRUPT BACTERIAL MEMBRANES. EACH CAERIN DISPLAYS A DIFFERENT ANTIMICROBIAL SPECIFICITY.

DISPLAYS A DIFFERENT ANTIMICROBIAL SPECIFICITY.
-1- TISSUE SPECIFICITY: SECRETED BY THE SKIN PAROTOID AND/OR ROSTRAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Antibiotic;
PEPTIDE
PEPTIDE
                        MEDLINE-20069371; Pubmed-10601876;

Wabnitz P.A., Bowie J.H., Tyler M.J., Wallace J.C., Smith B.P.;

Wabnitz P.A., Bowie J.H., Tyler M.J., Wallace J.C., Smith B.P.;

Poliferences in the skin peptides of the male and female Australian tree frog Litoria spendida. The discovery of the aquatic male sex pheromone splendipherin, together with Phe8 caerulein and the antibiotic peptide caerin 1.20.";

Eur. J. Biochem. 267:269-275(2000).

-I- FUNCTION: ANTIBACTERIAL PEPTIDE, THAT ADOPTS AN ALPHA HELICAL CONFORMATION WHICH CAN DISRUPT BACTERIAL MEMBRANES. EACH CAERIN DISPUTANS A DIFFERENT ANTIMICROBIAL SPECIFICITY.

-I- FUNCTION: ACTS AS A MALE SEX PHEROMONE THAT ATTRACTS FEMALE.

-I- TISSUE SPECIFICITY: SECRETED BY THE SKIN PAROTOID AND/OR ROSTRAI
                                                                                                                                                                                                                                                     SPECIES=L.SPLENDIDA; TISSUE=SKIN SECRETION; MEDLLNE=99447035; PubMed=10519546; Wabnitz P.A., Bowie J.H., Tyler M.J., Wallace J.C., "Aquatic sex pheromone from a male tree frog."; Nature 401:444-445(1999).
[3]
                                                                                                                                                                                                                                                                                                                                                                              J. Chem.
                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE, AND MASS SPECTROMETRY.
SPECIES-L.CAERULEA; TISSUE-PAROTOID GLAND;
Stone D.J.M., Waugh R.J., Bowle J.H., Wallace J
"Peptides from Australian frogs. The structures
Litoria caerula.";
                                                                                                                                                                                                                      SEQUENCE.
SPECIES-L.SPLENDIDA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-JUL-1998 (Rel. 36,
15-JUL-1998 (Rel. 36,
01-OCT-2000 (Rel. 40,
SPLENDIPHERIN (CAERIN
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P56235; P8
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SPECTROMETRY: MW-1695;
ic; Amphibian skin.
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Batrachia; Anura; Neobatrachia; Bufonoidea; Hylidae;
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Pred. No. 1.3e+03;
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CAERIN 2.2.1.
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RANGE-9-25
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P56237;
15-JUL-1998
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CAERIN 2.5.
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15-JUL-1998
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CAERIN 2.4.
TISSUE-PAROTOID GLAND;
Waugh R.J., Stone D.J.M., Bowle J.H., Wallace J.C., Tyler M.J.;
Waugh R.J., Stone D.J.M., Bowle J.H., Wallace J.C., Tyler M.J.;
"Peptides from Lustralian frogs. The structures of the caerins and caeridins from Litoria gilleni.";
J. Chem. Res. 139:937-961(1993).
J. Chem. Res. 139:937-961(1993).
J. CHEMICAL ANTIBACTERIAL PEPTIDE, THAT ADOPTS AN ALPHA HELICAL CONFORMATION WHICH CAN DISRUPT BACTERIAL MEMBRANES. EACH CAERI DISPLAYS A DIFFERENT ANTIMICROBIAL SPECIFICITY.
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Stone D.J.M., Waugh R.J., Bowie J.H., Wallace J.C., Tyler M.J.;

"Peptides from Australian frogs. The structures of the caerins from Litoria caerula.";

J. Chem. Res. 138:910-936(1993).

-!- FUNCTION: ANTIBACTERIAL PEPTIDE, THAT ADOPTS AN ALPHA HELICAL CONFORMATION WHICH CAN DISRUPT BACTERIAL MEMBRANES. EACH CAERIN DISPLAYS A DIFFERENT ANTIMICROBIAL SPECIFICITY.

-!- TISSUE SPECIFICITY: SECRETED BY THE SKIN PAROTOID AND/OR ROSTRAL
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P56236;
                                                                                                               SEQUENCE,
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Antibiotic; Amphibian skin.
SEQUENCE 25 AA; 2452 MW; DDD82C35D49596B8 CRC64;
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Amphibia;
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Amphibia; Batrachia; Anura; Neobatrachia; Bufonoidea; Hylldae;
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Batrachia; Anura; Neobatrachia; Bufonoidea; Hylidae;
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25 AA; 2366 MW; DDD82C36B49186B8
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Best Local Similarity 80.
Matches 4; Conservative
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Best Local Similarity 50.0
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                                                                                                   OXIA_OPHHA STANDARD; PRT; 19 AA. P81383; P81383; Created) 15-DEC-1998 (Rel. 37, Created) 15-JUL-1999 (Rel. 38, Last sequence update) 15-JUL-1999 (Rel. 39, Last annotation update) 1-AMINO ACID OXIDASE (EC 1.4.3.2) (LAO) (LAO) Ophiophagus hannah (King cobra) (Naja hannah). Eukaryota; Metazoa; Chordata; Craniata; Verteb
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P19628;
01-FEB-1991 (Rel. 17, Created)
01-FEB-1991 (Rel. 17, Last sequence update)
01-FEB-1995 (Rel. 31, Last annotation update)
CARBOXYPEPTIDASE B (EC 3.4.17.2) (FRAGMENT).
Protopterus aethiopicus (Marbled lungfish).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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Reeck G.R., Neurath H.;
"Isolation and characterization of pancreatic procarboxypeptidase and carboxypeptidase B of the African lungfish.";
Biochemistry 11:3947-3955(1972).
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Antibiotic; Amphibian skin.
SEQUENCE 25 AA; 2450 MW;
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INTERPRO, IPRO00834; -.
PROSITE; PS00132; CARBOXYPEPT_ZN_1; PARTIAL.
PROSITE; PS00133; CARBOXYPEPT_ZN_2; PARTIAL.
Hydrolase; Carboxypeptidase; Zinc; Zymogen.
Hydrolase; Carboxypeptidase; ACTIVATION PEPTIDE.
  SEQUENCE
                                                   Elapidae;
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MEROPS; M14.003; -.
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                                                                               Lepidosauria; Squamata; Scleroglossa;
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                                                   Elapinae; Ophiophagus.
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Pred. No. 1.1e+03;
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MEDLINE-94361525; PubMed-8080286;
Ponnudurai G., Chung M.C.M., Tan N.-H.;
Puntification and properties of the L-amino and properties of the L-amino applied to the L-amin
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01-NOV-1997
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_PACLE
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Hall M., van Heusden M.C., Soederhaell K.;
"Identification of the major lipoproteins in crayfish hemolymph as proteins involved in immune recognition and clotting.";
Biochem. Biophys. Res. Commun. 218:939-946(1995).
-!- FUNCTION: INVOLVED IN LIPID TRANSPORT. PLAYS A ROLE IN HEMOLYMPH CLOTTING. MAY BE INVOLVED IN WOUND HEALING IN THE CUTICLE.
-!- SUBCELLULAR LOCATION: EXTRACELLULAR.
-!- TISSUE SPECIFICITY: SECRETED INTO THE HEMOLYMPH.
-!- SIMILARITY: TO VITELLOGENINS.
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Ahn M.Y., Lee B.M., Kim Y.S.;
Ahn M.Y., Lee B.M. and cytotoxicity of L-amino acid
"Characterization and cytotoxicity of L-amino acid
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MEDLINE-PALLOCATION MEDLINE-PALLOCATION MEDICAL ALONSO C., Fernaulocation, and partial confusion of the metalian medical partial confusion of the europaea.";
allergens of Olea europaea.";
J. Allergy Clin. Immunol. 101:210-216(1998).
-I- DISEASE: MAJOR ALLERGEN FROM OLIVE POLLEN.
-I- DISEASE: MAJOR ALLEGEN (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                             15-DEC-1998 (Rel. 35, Last sequence update)
15-DEC-1998 (Rel. 37, Last annotation update)
MAJOR POLLEN ALLERGEN OLE E 4 (OLE E IV) (FRAGMENTS).
Olea europaea (Common olive).
Eukaryota, Viridiplantae; Embryophyta; Tracheophyta; Sper
Magnoliophyta; eudicotyledons; core eudicots; Asteridae;
Lamiales; Oleaceae; Olea.
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P80741;
01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Oxidoreductase; on NON_TER 21 SEQUENCE 21 AA
                                                                                                                   TISSUE-POLLEN;
TISSUE-POLLEN;
MEDLINE-98160390; PubMed-9500754;
Boluda L., Alonso C., Fernandez-Caldas E.;
Boluda L., Alonso C., Fernandez-Caldas E.;
"""""fication, characterization, and partial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           _OLEEU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ables L.) trees.";

Plant Physiol: 100:334-340(1992).

-I- FUNCTION: DESTROYS RADICALS WHICH ARE NORMALLY PRODUCED WITHI CELLS AND ARE TOXIC TO BIOLOGICAL SYSTEMS.

-I- CAPALYTIC ACTIVITY: 2 PEROXIDE RADICAL + 2 H(+) = O(2) + H(2)  
-I- SUBCHIT: HOMODIMER.

-I- SUBCHLULAR LOCATION: CYTOPLASMIC.

-I- TISSUE SPECIFICITY: DOMINANT ISOZYME IN ROOTS.

-I- MISCELLANBOUS: EUKARYOTIC CELLS CONTAIN A MITOCHONDRIAL MN-CONTAINING ENZYME & A CYTOPLASMIC CU-ZN-CONTAINING ENZYME.

-I- SIMILARITY: BELONGS TO THE CU-ZN SUPEROXIDE DISMUTASE FAMILY.
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STANDARD; PRT; 21 AA.

SOD2_PICAB STANDARD; PRT; 21 AA.

P29428;

01-APR-1993 (Rel. 25, Created)
01-APR-1993 (Rel. 25, Last sequence update)
30-AAR-2000 (Rel. 39, Last annotation update)
SUPEROXIDE DISMUTASE [CU-ZN] II (EC 1.15.1.1) (SOD II
Plcea ables (Norway Spruce) (Picea excelsa).

Eukaryota; Viridiplantae; Embryophyta; Tracheophyta;
Coniferopsida; Coniferales; Pinaceae; Picea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kroeniger W., Rennenberg H., Polle A.; "Purification of two superoxide dismutase isozymes and subcellular localization in needles and roots of Norway
                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PFAM; PF00080; sodcu; 1.
PROSITE; PS00087; SOD_CU_ZN_1; PARTIAL.
PROSITE; PS00332; SOD_CU_ZN_2; PARTIAL.
Oxidoreductase; Copper; Zinc; Multigene
NON.TER 21 21
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01-NOV-1997
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NON_CONS
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SEQUENCE
                                                                                                                         NODD_RH
Q52838;
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- FUNCTION: HAS A MON-HEMOLYTIC ACTIVITY. HAS A BROAD SPECTRUM OF ACTIVITY AGAINST BOTH GRAM POSITIVE AND GRAM NEGATIVE BACTERIA, FUNGI AND PROTOZOA.
MEDLINE=97002748; PubMed=8850088; Scott D.B., Young C.A., Collins-Emerson
                     SEQUENCE FROM N.A. STRAIN-NZP 2213;
                                                                                                                                                                                                                                                                         Amphibian skin; Antibiotic.
DISULFID 18 24
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Eukaryota; Metazoa; (
Amphibia; Batrachia;
                                                           Bacteria;
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                                                                  Rhizobium
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"Antimicrobial peptides
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAEGURIN-6.
                                                 Phyllobacteriaceae;
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Mesorhizobium
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  Terzaghi E.A.,
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Ranidae; Rana
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P56247;
15-JUL-1998 (Rel.
15-JUL-1998 (Rel.
15-JUL-1998 (Rel.
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"Novel and complex chromosomal arrangement of Rhizobium loti
nodulation genes.";
Mol. Plant Microbe Interact. 9:187-197(1996).
-i- FUNCTION: NODD REGULATES THE EXPRESSION OF THE NOD ABCFE GENES
WHICH ENCODE OTHER NODULATION PROTEINS. NODD IS ALSO A NEGATIVE
REGULATOR OF ITS OWN EXPRESSION. BINDS FLAVENOIDS AS INDUCERS.
-i- SIMILARITY: BELONGS TO THE LYSR FAMILY OF TRANSCRIPTIONAL
                                                                                               Amphibian skin; Amidation.
MOD_RES 15 15
SEQUENCE 15 AA; 1410 MW
                                                                                                                                                                                                                                                                                                                                                                                                                                              LITGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                   Waugh R.J., Stone D.J.M., Bowle J.H., Wallace J.C., Tyler M.J.;
"Peptides from Australian frogs. The structures of the caerins and
caeridins from Litoria gilleni.";
J. Chem. Res. 139:937-961(1993),
J. Chem. Res. 139:937-961(1993),
-i- FUNCTION: CAERIDINS SHOW NEITHER NEUROPEPTIDE ACTIVITY NOR
-NATIBIOTIC ACTIVITY: SECRETED BY THE SKIN PAROTOID AND/OR ROSTRA
                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; (Amphibia; Batrachia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a copyright the Swiss Institute of Bioinformatics and the EMBL
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                                                                                                                                                                                                                                                                  TISSUE-PAROTOID GLAND;
                                                                                                                                                                                                                                                                              SEQUENCE, AND MASS
                                                                                                                                                                                                                                                                                                                                                Litoria gilleni.
                                                                                                                                                                                                                                                                                                                                                               CAERIDIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
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  11 LDMVG 15
                                          Local Similarity
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5; Conserva
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                               Conservative
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cription regulation; DNA-binding; Activator;
                                                                                                  1410 MW;
                                                                                                                                                                                                                                                                               SPECTROMETRY
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41.7%;
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Neobatrachia; Bufonoidea;
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Pred.
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06F1BBF272550CBF
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a; Hylidae;
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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.

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Result
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Q9trx0 sus scrofa
Q9trb9 bos taurus
O89021 mus musculu
Q9xwy2 bacteriopha
Q48860 oryza sativ
Q9xt42 can1s famil
Q62538 mus spretus
Q85543 chlamydia t
Q9trq1 mus sp. bet
Q93365 sus scrofa
Q9x4f2 streptomyce
Q9x5e9 haemophilus
Q9qvj9 mus sp. med
Q47529 escherichia
Q4861 oryza sativ
Q9ty13 nicotiana s
Q9qv05 rattus sp.
Q9qv05 rattus sp.
Q63392 pseudorabie
Q9s941 beta vulgar
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ALIGNMENTS

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Ol-MAY-2000 (TrEMBLrel. 13, Created) Ol-MAY-2000 (TrEMBLrel. 13, Last sequence update) Ol-OCT-2000 (TrEMBLrel. 15, Last annotation update) ENTEROTOXIN-BINDING GLYCOPROTEIN PP20K (FRAGMENT). BOS taurus (Bovine). Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metazoa; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;	LT 2 B9 09TRB9: PRELIMINARY; PRT; 20 AA.	7 LSTGLDMYGL 16 :: : 2 LLTGLDLLGI 11	Query Match 31.2%; Score 34; DB 6; Length 11; Best Local Similarity 60.0%; Pred. No. 30; Matches 6; Conservative 3; Mismatches 1; Indels 0; Gaps 0;	Biochim. Biophys. Acta 1078:388-394(1991). SEQUENCE 11 AA; 1084 MW; 8A7A5CBC2AA72861 CRC64;	"Purification and characterization of cytochrome P-45014DM (lanosterol 14 alpha-demethylase) from pig liver microsomes.";	SEQUENCE. MEDLINE-91316123; PubMed-1859829; Sono H., Sonoda Y., Sato Y.;	Mammalia; Eucheria; Cecarriodactyia; Suina; Suidae; Sus. NCBI_TaxID=9823; [1]	Chordata; Craniata; Vertebrata;	14 ALPHA-DEMETHYLASE,	01-MAY-2000 (Trembirel. 13, Created) 01-MAY-2000 (Trembirel. 13, Last sequence update)	QOTRXO PRELIMINARY; PRT; 11 AA. OOTRYO.	II 1

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                                                                      SEQUENCE FROM N.A.
MEDLINE=97076910; PubMed=8975608;
Datz M., Janetzki-Mittmann C., Franke S.,
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01-MAY-1999 (TrEMBLrel.
01-MAY-1999 (TrEMBLrel.
ILEX, STX2A, STX2B, GENE
              containing
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Viruses; dsDNA viruses,
NCBI_TaxID=10730;
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Submitted (SEP-1998) to the
EMBL; AJ011106; CAA09489.1;
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NCBI_TaxID=9913;
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STRAIN-BALB/C; TISSUE-SKELETAL MUSCLE;
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Mammalia; Eutheria;
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"Enterotoxin-binding glycoproteins i
heated bovine milk.";
J. Dairy Sci. 77:930-939(1994).
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MEDLINE=94259890; PubMed=8201051;
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HSSP; P02754; 1BSY.
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STRAIN-G., Yang J., Zhai W., He I
Submitted (MAX-1997) to the EI
EMBL; AF003599; AAB94484.1;
INTERPRO; IPR001356; -...
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Eukaryota; Viridiplantae; Embryophyta; Tracheophyta;
Magnoliophyta; Lillopsida; Poales; Poaceae; Oryza.
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KRAICH H., Schmidt H., Janetzki-Mittmann C., Sc
KRAICH H., Schmidt H., Janetzki-Mittmann C., Sc
"Shiga toxins, even when different are encoded
"Shiga toxins, even when different are encoded
in related temperate bacteriophages.";
Submitted (MAR-1999) to the EMBL/GenBank/DBJ
EMBL; Y10775; CAB39286.1;
EMBL; Y10775; CAB39286.1;
EMBL; Y10775; CAB39286.1;
SEQUENCE 25 AA; 2779 MW; F2504C217C2A905C
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                                                                                                                                                                                                                                                                                                                                                                                                                   Spermatophyta;
                                                                                                                                                                                                                                                                                                                                                 Zhu L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Karch H.;
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Canis familiaris (Dog).
Eukaryota; Metazoa; Chordata;

Craniata; Vertebrata;

Euteleostomi;

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STREET DOOR OF COCCOCCETAR ARE COCCOCCETATE OCCOCCETATE OCCOCCETAT
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Matches 5
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01-JUN 1998 (TrEMBLrel. 06, Created)
01-JUN 1998 (TrEMBLrel. 06, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
GRANZYME B(G-H) (EC 3.4.21.79) (CYTOTOXIC CELL PROT
(CTLA-1) (FRAGMENTIN 2) (FRAGMENT).
GZMB OR CTLA-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
MEDLINE-99293036; Pubmed-10362815;
MEDLINE-99293036; Sado Y., Naito
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
STRAIN-SPRET/EI;
MEDLINE-94319082; PubMed-8043949;
KO_M.S., Wang X., Horton J.H., Hagen M.D., Takahashi N., Maezaki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Absence of the alpha6(IV) chain of collagen typ
syndrome is related to a failure at the protein
does not result in diffuse leiomyomatosis.";
Am. J. Pathol. 154:1883-1891(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                 -I- SUBCELLULAR LOCATION: CYTOPLASMIC GRANULES OF CYT
LYMPHOCYTES AND NATURAL KILLER CELLS.
-I- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1; ALSO
TRYPSIN FAMILY. STRONGEST TO OTHER GRANZYMES AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Genetic mapping of 40 cDNA clones on the mouse genome by PCR.";
MAMM. Genome 5:349-355(1994).

-i. FUNCTION: THIS ENZYME IS NECESSARY FOR TARGET CELL LYSIS IN CELL-
MEDIATED INMUNE RESPONSES: IT CLEAVES AFTER ASP. SEEMS TO BE
LINKED TO AN ACTIVATION CASCADE OF CASPASES (ASPARTATE-SPECIFIC
CYSTELME PROTEASES) RESPONSIBLE FOR APOPTOSIS EXECUTION. CLEAVES
CASPAGE-3, -7, -9 AND 10 TO GIVE RISE TO ACTIVE ENZYMES MEDIATING
APOPTOSIS (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=10096;
                                                                                                                                                                                                                                                                           EMBL; U05708; AAB60471.1;
HSSP; P04187; 2CP1.
MEROPS; S01.136; -.
MGD; MGI:109267; Gzmb.
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Thorner P.S.;
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Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Jtheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
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                                    23.9%;
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Score 26; DB 11;
Pred. No. 1.3e+03;
4; Mismatches 5;
                                                                                                                                                                                                                                              Zymogen; T-cell; Cytolysis; Apoptosis.
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Hsleh Y.-H., Bobo L.D.;
Hsleh Y.-H., Bobo L.D.;
"Diversity of major outer membrane
"Diversity of major outer membrane
trachomatts in trachoma endemic vi
submitted (JUN-1998) to the EMBL/C
EMBL; AF070327; AAC25298.1; -.
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SEQUENCE 22 AA; 2237 MW; 3BD20
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085543;
01-NOV-1998
01-NOV-1998
                                                                                                                                                                      MHC.
SEQUENCE
                                                                                                                                                                                                                Joyce S., Kuzushima K., Kepecs G., Angeletti R.H., Nath "Characterization of an incompletely assembled major histocompatibility class I molecule (H-2Kb) associated long peptides: implications for antigen processing and Proc. Natl. Acad. Sci. U.S.A. 91:4145-4149(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  O9TNQ1 PRELIMINARY; PRT; 15 AA.

Q9TNQ1:
01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
01-MAY-2000 (TrEMBLREL. 13, Last annotation update)
BETA 2M-CLASS 1-BINDING PEPTIDE-MAJOR HISTOCOMPATIBILITY
H-2KB-SPECIFIC MOLECULE POORLY ASSOCIATED WITH BETA 2-MICR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chlamydia trachomatis. Bacteria; Chlamydiales;
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Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
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4 MEMBRANE PROTEIN
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Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              outer membrane protein (omp-1) of Chlamydia homa endemic villages, Kongwa, Tanzania."; ) to the EMBL/GenBank/DDBJ databases. 25298.1; ...
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                                                   ; Score 25; DB
; Pred. No. 1.3e
0; Mismatches
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N (FRAGMENT).
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01-MAY-1999 (TrEMBLrel. 10, Las
01-MAY-1999 (TrEMBLrel. 10, Las
CYTOCHROME OXIDASE SUBUNIT 2 ()
                                                                                                                                                                                                                                                                                                          MEDLINE-96139410; PubMed-8557586; Yano K., Yamasaki M., Yoshida M., Matsuda Y., Yamaguchi K.; Yano K., Yamasaki M., Yoshida M., Matsuda Y., Yamaguchi K.; "RES-701-2, a novel and selective endothelin type B receptor antagonist produced by Streptomyces sp. II. Determination of primary structure.";
J. Antibiot. 48:1368-1370(1995).
SEQUENCE 16 AA; 2061 MW; 4E7B0E0789E244DB CRC64;
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J. Anim. Sci. 76:2207-2208(1998).
EMBL; ARO39170; AAD05063.1; -.
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NCBI_TaxID=9823;
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Q47529;
Q1-NOV-1996 (TrEMBLrel. 01,
Q1-NOV-1996 (TrEMBLrel. 08,
Q1-NOV-1998 (TrEMBLrel. 08,
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Kounnas M.Z., Wolz R.L., Gorbea C.M., Bond J.S.
"Meprin-A and -B. Cell surface endopeptidases
J. Biol. Chem. 266:17350-17357(1991).
SEQUENCE 19 AA; 2157 MW; 81E66F19417E20C5
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Tagawa Y., Ishikawa H., Yuasa N.;
"Purification and partial characterization
protein of Haemophilus somnus.";
Infect. Immun. 61:91-96(1993).
SEQUENCE 16 AA; 1709 MW; 910FCA6B728DDE
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MEDLINE=94105345; PubMed=8278548;

Obokata J., Mikami K., Hayashida N., Nakamu

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psal are all present in isoforms in Nicotia
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HOMEOBOX PROTEIN (FRAGMENT).
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Post D.A., Hore-Jensen B., Switzer R.L.;
"Characterization of the hemA-prs region of the Escherichia Salmonella typhimurium chromosomes: identification of two op frames and implications for prs expression.";
J. Gen. Microbiol. 139:259-266(1993).
EMBL; M77237; AAA24432.1; -.
EMBL; M77237; AAA24432.1; -.
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Eukaryota; Viridiplantae; F
Magnoliophyta; Liliopsida;
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8 KDA PHOTOSYSTEM I PSAG PROTEIN (FRAGMENT).
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Taniyama M., Katagiri T., Tom
J. Biochem. 117.400-407(1995)
SEQUENCE 16 AA; 1809 MW;
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NCBI_TaxID=10118;
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SEQUENCE 23 i
                                                                                                                                                                                                                                                                                 MEDLINE=95081163; PubMed=7989378;
Tomilo M., Wilkinson K.S., Ryan P.;
"Can a signal sequence become too hyd
J. Biol. Chem. 269:32016-32021(1994).
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AA; 2415 MW; E56CC139D095A968
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Varicellovirus.
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Tomita
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, Last sequence update)
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GC ALLELE ASGR6L PRECURSOR (FRAGMENT).
Score 24; DB Pred. No. 3.1e 1; Mismatches
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Pred. No. 2e+C
2; Mismatches
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Sciurognathi; Muridae;
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Murinae; Rattus.
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
SMALL NUCLEAR INCLUSION POLYPROTEIN CLEAVAGE PRODUCT.
Tobacco etch virus (TEY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDITINE-92179265; PubMed-1311852;
Sarafian V., Kim Y., Poole R.J., Rea P.A.;
"Molecular cloning and sequence of cDNA encoding the pyrophosphate-energized vacuolar membrane proton pump of Arabidopsis thaliana.";
Proc. Natl. Acad. Sci. U.S.A. 89:1775-1779(1992).
SEQUENCE 13 AA; 1243 MW; C9DB193C37C22AAD CRC64;
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Bukaryota; viridiplantae; Embryophyta;

Magnoliophyta; eudicotyledons; core euc

Caryophyllales; Chenopodiaceae; Beta.

NCBI_TaxID=3555;
 Q9UCP7
                                                                                                                                                                       Dougherty W.G., Parks T.D.;

"Post-translational processing of the tobacco etch virus 49-kDa nuclear inclusion polyprotein: identification of an internal cle site and delimitation of VPg and proteinase domains.";

Virology 183:449-456(1991).

SEQUENCE 15 AA; 1680 MW; 2273B6E461D0F28C CRC64;
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01-MAY-2000 (TIEMBLIEL. 13, Last sequence update)
01-JUN-2000 (TIEMBLIEL. 14, Last annotation update)
11-TRANSLOCATING (PYROPHOSPHATE-ENERGIZED) INORGANIC
PYROPHOSPHATASE BETA-2 POLYPEPTIDE (EC 3.6.1.1) (FRAGMENT).
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2.8e+03;
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Schwarting R., Brenner M.B.;
Schwarting R., Brenner M.B.;
"A family of beta 7 integrins on human mucosal l
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024445 PRELIMINARY; PRT; 17 AA. 024445; 01-JAN-1998 (TEMBLrel. 05, Created) 01-JAN-1998 (TEMBLrel. 05, Last sequence update) 01-AUG-1998 (TEMBLrel. 07, Last annotation update THIS ORF RESIDES IN THE 5'UTR OF CPPHY2. Ceratodon purpureus (Moss). Eukaryota; Viridiplantae; Embryophyta; Bryophyta; Dicranidae; Dicranales; Ditrichaceae; Ceratodon.
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09TRD9;
01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sec
01-JUN-2000 (TrEMBLrel. 14, Last and
V2 VASOPRESSIN RECEPTOR (FRAGMENT).
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01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
HML-1 BETA SUBUNIT, SMALLER HML-1 SUBUNIT, BETA 7
INTEGRIN-HETERODIMERIC PROTEIN COMPLEX RECOGNIZED BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-94079886; PubMed-8257689;
Kojro E., Elch P., Gimpl G., Fahrenholz F.;
"Direct identification of an extracellular ago
renal V2 vasopressin receptor.";
Biochemistry 32:13537-13544(1993).
SEQUENCE 17 AA; 1904 MW; E3C89EB346200E57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bos taurus (Bovine).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae
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SEQUENCE FROM N.A. NCBI_TaxID=3225; [1]

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01-MAY-2000 (TrEMBLrel. 14, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
CHAPERONIN 60 BETA CHAIN (FRAGMENT).
MARCISSUS pseudonarcissus (Daffodil).
Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;
Magnoliophyta; Liliopsida; Asparagales; Amaryllidaceae; Narcissus.
NCBI_TaxID-39639;
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
8 KDA PHOTOSYSTEM I PSAG PROTEIN (FRAGMENT).
NICOLIANA tabacum (Common tobacco).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-96291727; PubMed-8754688; Bonk M., Tadros M., Vandekerckhove J., Al-Babili S., Beyer P.; Purification and characterization of chaperonin 60 and heat-shock protein 70 from chromoplasts of Narcissus pseudonarcissus."; Plant Physiol. 111:931-939(1996). SEQUENCE 18 AA; 2108 MW; E324CCA884907EE8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pasentsis K., Paulo N., Dittrich P., Algarra P., Thuemmler F.; Submitted (OCT-1990) to the EMBL/GenBank/DDBJ databases. EMBL; U7293; AAB19059.1; -. SEQUENCE 17 AA; 1949 MW; 072DF72059DF1C7C CRC64;
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                                                                                                                                         Eukaryota; Viridiplantae; Embryophyta; magnoliophyta; eudicotyledons; core euc Solanales; Solanaceae; Nicotiana.
MEDLINE=94105345; PubMed=8278548; Obokata J., Mikami K., Hayashida N.,
                                                             SEQUENCE.
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Nakamura M., Sugiura;M.;

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SEQUENCE 19 AA; 1976 MW; E08869791A6712FE CRC64;
10 LSTGL
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ALIGNMENTS

GAD; 65 kD; human; glutamic acid decarboxylase; autoreactive; diagnosis; insulin-dependent diabetes mellitus; IDDM; cell-mediated disease; W18846; W18846 standard; peptide; 20 predisposition; autoimmune; tumour; rheumatoid arthritis; multiple sclerosis. 65 kD Glutamic acid decarboxylase peptide fragment V. 05-JAN-1998 (first entry) ₿

20-JUL-1995; 23-JAN-1997. DE19526561-A1. Synthetic. 20-JUL-1995; 95DE-1026561. 95DE-1026561.

(BOEF) BOEHRINGER MANNHEIM GMBH.

Donie F, Endl J, Ganz M, Jung G, Pozzilli P, Stahl P; Kientsch-engel

WPI; 1997-088254/09

Skin test for diagnosis of cell-mediated diseases, esp. diabetes involving intradermal admin. of auto:reactive substances

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Stahl P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              W18842-70 are peptide fragments of the 65 kD human glutamic acid decarboxylase (GAD). The fragments are autoreactive substances used for diagnosis of insulin-dependent diabetes mellitus (IDDM). The diagnosis is determined by using a claimed method for diagnosis of cell-mediated diseases or a predisposition to cell-mediated diseases, which is effected by administering an autoreactive substance intradermally and establishing the diagnosis on the basis of the occurrence or lack of a positive reaction at the site of administration. The method is used for diagnosis of autoimmune and tumour diseases, preferably T-cell-mediated diseases such as rheumatoid arthritis, multiple sclerosis and especially IDDM.
               The present peptide is a framgent of the human 65 kD glutamine decarboxylase (GAD), which can be used to diagnose, or diagnose a predisposition to, a tumour or immunological disease, preferably an autoimmune disease, especially diabetes. It can also be used as a reagent to determine specific T cell subpopulations, in medicaments to treat or prevent immunological diseases, preferably autoimmune diseases, especially diabetes, to produce antigens, especially subpopulations, which can be used to produce antigens or for subpopulations, which can be used to produce antigens or for
                                                                                                                                                                                                                                                                          Claim 1;
                                                                                                                                                                                                                                                                                                                                              Glutamine decarboxylase peptide(s) -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; glutamine decarboxylase; GAD; diagnosis; predisposition; tumour; immunological; disease; autoimmune; diabetes; reagent; tumour; immunological; subpopulation; medicament; treatment; prevention; production; antigen; immunogen; tolerogen; isolatic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human 65 kD glutamine decarboxylase peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-OCT-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-JUL-1995;
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reinjection,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-JUL-1995;
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20; Conserv
                                                                                                                                                                                                                                                                          Page 12; 15pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Boitard C,
Van Endert P;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20 AA;
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optionally after
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Pred. No. 4.2e-13;
Mismatches 0;
  inactivation.
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RESULT
R72272
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Y59572
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Matches 16; Conser
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                                                                                                                                                                                                      Q86481 and Q86482 encode R71733 and R79105, rat and human glutamic acid decarboxylase (GAD65) respectively, from which the GAD65 fragments described in R72261-R7280 were derived. These fragments can be used to detect autoantibodies against GAD, e.g. to diagnose and treat GAD-related autoimmune disorders, such as insulin dependant diabetes mellitus or stiff man disease.
                                                                                                                                                                                                                                                                                                                    New polypeptide fragments of glutamic acid decarboxylase - for diagnosis and treatment of auto:immune disease, esp. insulin dependent diabetes, also related nucleic acid, vectors, antibodies, hybridoma(s) etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Glutamic acid decarboxylase; GAD65; auotimmune insulin-dependant diabetes mellitus; stiff man
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                                                                                                                                                                                                                                                                                             Example 11; Page 76; 100pp; English.
                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1995-131360/17.
                                                                                                                                                                                                                                                                                                                                                                                                                Clare-Salzler MJ,
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                                                                                                                                                                                                                                                                                                                                                                                                                                        (REGC ) UNIV CALIFORNIA.
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                                                                          PRYFNQLSTGLDMVGL 16
                                                               pryfnqlstgldmvgl
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standard; peptide;
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                                                                                                                                                                                20 AA;
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                                                                                                               77.1%; Score 84; DB ilarity 100.0%; Pred. No. 1. Conservative 0; Mismatches
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llarity 100.0%;
Conservative 0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GAD65) fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 109; DB 18;
Pred. No. 4.2e-13;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                Kaufman DL,
                                                                                                                             DB 16; 1
1.3e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                 Tobin
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                                                                                                                    Indels
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Tue

03-APR-2000

(first entry)

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RESULT
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Best Local
                                                                                                                                                                                                                                                                                                                                                                      This sequence represents a fragment of the glutamic acid decarboxylase (GAD65) protein. The invention relates to a method of ameliorating GAD associated autoimmune disorders by administering a GAD65 peptide to the patient. The method can be used for ameliorating GAD associated autoimmune disorders such as IDDM (insulin dependent diabetes mellitus) and Stiff man disease. GAD65 can also be useful for screening drugs that alter GAD function, for generating monoclonal antibodies and in inmunoassays. GAD65 is an effective diagnostic tool for predicting IDDM and the diagnosis is quite easy. It is also possible to obtain much larger quantities of polypeptide via recombinant techniques than are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-JUN-1995;
21-SEP-1990;
18-JUN-1991;
                                 65 kD glutamic acid decarboxylase; human; GAD65; enzyme; pancreas; neuron; central nervous system; type I diabetes; autoimmune response; T cell; therapy.
                                                                                                                                                         W12405 standarď;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ameliorating glutamic acid decarboxylase associated autoimmune disorders such as insulin dependent diabetes mellitus and Stif
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAD65; glutamic acid decarboxylase 65; autoimmune disorder; IDDM; insulin dependent diabetes mellitus; Stiff man disease; diagnosis;
                                                                                   GAD65 residues 177-191.
                                                                                                             08-OCT-1997
                                                                                                                                    W12405;
                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                              available from natural sources.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 11; Column 42; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2000-095930/08.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Tobin AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (REGC ) UNIV CALIFORNIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09-APR-1997;
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           Homo sapiens
                                                                                                                                                                                                                                                                                     Local
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                                                                                                                                                                                                                                                 1 PRYFNQLSTGLDMVGL 16
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                                                                                                                                                                                                                                                                                     Similarity
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                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                       AA;
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90US-0586536.
91US-0716909.
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                                                                                                                                                            peptide;
                                                                                                                                                                                                                                                                                     77.1%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Erlander MG;
                                                                                                                                                             15
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Pred. No.
                                                                                                                                                                                                                                                                         0
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                                                                                                                                                                                                                                                                         Mismatches
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. 1.3e-08;
                                                                                                                                                                                                                                                                         0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     and Stiff man
                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                         drugs that
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RESULT
R76657
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                              pancreas, and in neurons of the central nervous system. There are two isoforms of GAD, a 67 kD isoform, and GADGS. Immunodominant regions of GADGS have been identified in Type I diabetic pattients. These GADGS fragments, and analogues, are used in the methods of the invention. The methods are for detecting or treating diabetes or a predisposition to diabetes. The peptides can also be used for ameliorating an autoimmune response in a patient. Alteration of the native peptides with selective changes of crucial residues can induce unresponsiveness or change the responsiveness of antigen-specific autoreactive T cells. The peptide analogues compete for binding to MHC and do not cause proliferation of the corresponding native peptide-specific T cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              of human glutamic acid decarboxylase (GAD65) (see W12402 for full length wild type protein). GAD is an enzyme expressed in the beta cells of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           W12403-W12413 represent fragments and analogues of the the 65 kD isoform of human glutamic acid decarboxylase (GAD65) (see W12402 for full length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 23; Page -; 28pp; English.
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                                            DE4418091-A1
                                                                     Homo sapiens
                                                                                               diagnosis; autoimmune
                                                                                                                 diabetes; 1-cell subpopulation; detection; antigen production;
                                                                                                                                             Peptide
                                                                                                                                                                        05-MAR-1996 (first entry)
                                                                                                                                                                                                      R76657;
                                                                                                                                                                                                                                R76657 standard; peptide; 14 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1997-087322/08.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conlon PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (KENN-) KENNEDY INST RHEUMATOLOGY.
(NEUR-) NEUROCRINE BIOSCIENCES INC.
(SBAR-) ST BARTHOLOMEM'S HOSPITAL CENT CLINICAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24-JUN-1996;
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                                                                                                                                                                                                                                                                                                                       2 RYFNQLSTGLDMVGL 16
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                                                                                                                                                                                                                                                               6
                                                                                                                                                                                                                                                                                                                                                                 15; Conserv
                                                                                                                                             defived from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaur A,
                                                                                                                                                                                                                                                                                                                                                                                                                                         15 AA;
                                                                                                                                                                                                                                                                                                                                                                 Conservative
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                                                                                                                                                                                                                                                                                                                                                                               70.6%;
                                                                                                                                             human
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "optionally substituted, providing at least
residues remain wild type"
                                                                                                                                           glutamic acid decarboxylase 16
                                                                                                                                                                                                                                                                                                                                                                              Score 77; pred. No.
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                                                                                                                                                                                                                                                                                                                                                                 Mismatches
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                                                                                                                                                                                                                                                                                                                                                                              1.7e-07;
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Best Local S
Matches 14
                                         Donie F,
Pozzilli
                                                                                                         20-JUL-1995;
                                                                                                                                                                                                                                                                                                     W18865;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R76642-62 are derived from human glutamic acid decarboxylase and specifically react with T-cell sub-populations isolated from recently diagnosed Type-I diabetics. Pharmaceutical compsns. conty these peptides and those shown in R77571-72, are useful for the diagnosis of a disease or predispositions of immune system diseases, tumours, and autoimmune diseases, including diabetes. The peptides are able to detec specific T-cell subpopulations that are then used for antigen prodn.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Albert W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             04-FEB-1994;
20-JAN-1994;
                    WPI; 1997-088254/09.
                                                                                                                                                            DE19526561-A1
                                                                                                                                                                                  Synthetic
                                                                                                                                                                                                     multiple sclerosis
                                                                                                                                                                                                                                                          65 kD Glutamic
                                                                                                                                                                                                                                                                               05-JAN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 1; Fig 2; 21pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Antigen-specific activated T-lymphocytes interaction with inventive peptide(s) of useful in diagnosis of e.g. diabetes and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Stahl P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24-MAY-1994;
                                                                         (BOEF ) BOEHRINGER MANNHEIM GMBH
                                                                                              20-JUL-1995;
                                                                                                                                       23-JAN-1997
                                                                                                                                                                                                                GAD; 65 kD; human; glutamic acid decarboxylase; autoreactive; disinsulin-dependent diabetes mellitus; IDDM; cell-mediated disease, predisposition; autoimmune; tumour; rheumatoid arthritis;
                                                                                                                                                                                                                                                                                                                         W18865 standard; peptide; 14 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
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                                        Endl J, T
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Schendel D;
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                                                                                                                                                                                                                                                                               (first entry)
                                                                                             95DE-1026561.
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94DE-4401629.
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                                        Ganz M,
P;
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                                                                                                                                                                                                                                                          decarboxylase peptide fragment 16
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                                                   Jung G,
                                                                                                                                                                                                                                                                                                                                                                                                                                Score 73;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
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                                                   Kientsch-engel
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8.2e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and their detection -
peptide-MHC complexes;
auto:immune diseases
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Skin test

for diagnosis

of.

cell-mediated diseases, esp. diabetes

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Matches 14
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W12403-W12413 represent fragments and analogues of the the 65 kD isoform of human glutamic acid decarboxylase (GAD65) (see W12402 for full length wild type protein). GAD is an enzyme expressed in the beta cells of the
                                                                                                                Claim
                                                                                                                                                              New human glutamic acid decarboxylase peptide(s) - used for treatment, diagnosis and determining predisposition to diabetes for ameliorating auto-immune responses.
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Location/Qualifiers
Misc-difference 1..15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAD65 residues 173-187
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                                                                                                                                                                                                                                                                                WPI; 1997-087322/08
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                                                                                                                                                                                                                                                                                                                                    PJ,
                                                                                                                                                                                                                                                                                                                                                                                        KENNEDY INST RHEUMATOLOGY
NEUROCRINE BIOSCIENCES IN
ST BARTHOLOMEW'S HOSPITAL
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                                                                                                             Page -;
                                                                                                                                                                                                                                                                                                                                                                                              BARTHOLOMEW'S HOSPITAL CENT CLINICAL.
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                                                                                                                                                                                                                                                                                                                                    Gaur A,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        95US-0494624.
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                                                                                                             28pp;
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                                                                                                                                                                                                                                                                                                                                       Leslie
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residues remain wild type"
                                                                                                             English.
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                                                                                                                                                                                                                                                                                                                                    RDG,
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8.2e-07;
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Best Local
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                                                                                               W18842-70 are peptide fragments of the 65 kD human glutamic acid decarboxylase (GAD). The fragments are autoreactive substances used for decarboxylase (GAD). The fragments are autoreactive substances used for diagnosis of insulin-dependent diabetes mellitus (IDDM). The diagnosis is determined by using a claimed method for diagnosis of cell-mediated diseases or a predisposition to cell-mediated diseases, which is effected by administering an autoreactive substance intradermally and establishing the diagnosis on the basis of the occurrence or lack of a positive reaction at the site of administration. The method is used for diagnosis of autolimnune and tumour diseases, preferably T-cell-mediated diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           pancreas, and in neurons of the central nervous system. There are two isoforms of GAD, a 67 kD isoform, and GADGS. Immunodominant regions of GADGS have been identified in Type I diabetic patients. These GADGS fragments, and analogues, are used in the methods of the invention. The methods are for detecting or treating diabetes or a predisposition to diabetes. The peptides can also be used for ameliorating an autoimmune response in a patient. Alteration of the native peptides with selective changes of crucial residues can induce unresponsiveness or change the responsiveness of antigen-specific autoreactive T cells. The peptide analogues compete for binding to MHC and do not cause proliferation of the corresponding native peptide-specific T cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAD; 65 kD; human; glutamic acid decarboxylase; autoreactive; diagnosis; insulin-dependent diabetes mellitus; IDDM; cell-mediated disease; predisposition; autoimmune; tumour; rheumatoid arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Skin test for diagnosis of cell-mediated diseases, esp. involving intradermal admin. of auto:reactive substances
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         65 kD Glutamic acid decarboxylase peptide fragment
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                                                                            such as rheumatoid
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 11; Page 9; 12pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-JUL-1995;
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12; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           φ,
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P, Stahl
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ganz M,
                                                                         arthritis, multiple sclerosis and especially IDDM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         59.6%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
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. 2.5e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               substances
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                                                                                                           The present peptide is a framgent of the human 65 kD glutamine decarboxylase (GAD), which can be used to diagnose, or diagnose a predisposition to, a tumour or immunological disease, preferably an autoimmune disease, especially diabetes. It can also be used as a reagent to determine specific T cell subpopulations, in medicaments to treat or prevent immunological diseases, preferably autoimmune diseases, especially diabetes to produce antigens, especially subpopulations, which can be used to produce antigens or for reinjection, optionally after inactivation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tumour; immunological; disease; autoimmune; diabetes; reager determination; T cell; subpopulation; medicament; treatment; prevention; production; antigen; immunogen; tolerogen; isole
                                                                                                                                                                                                                                                          Glutamine decarboxylase peptide(s) - for diagnosis and therapy of
                                                                                                                                                                                                                                                                                                   Stahl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human 65 kD glutamine decarboxylase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              W01796;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  W01796 standard; peptide;
                                                                                           Sequence
                                                                                                                                                                                                                            Claim 1; Page 12; 15pp; German.
                                                                                                                                                                                                                                                                                                            Albert W,
                                                                                                                                                                                                                                                                                                                                                                         14-JUL-1995;
                                                                                                                                                                                                                                                                                                                                                                                             16-JAN-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                  DE19525784-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                          reinjection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; glutamine decarboxylase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-OCT-1997
                                                                                                                                                                                                                                                                                                                                (BOEF ) BOEHRINGER MANNHEIM GMBH.
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Van Endert P;
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                                         Conservative
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                                                 50.5%;
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                                                  Score 55;
Pred. No.
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Pred. No.
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                                                                                                                                                                                                                                                                                                             Jung
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                                         Mismatches
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                                     DB 16;
0.0022;
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0.0022;
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                                                           Length 20
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                                                                                                                                                                                                                                                                                                                                                                  Q86481 and Q86482 encode R71733 and R79105, rat and human glutamic acid decarboxylase (GAD65) respectively, from which the GAD65 fragments described in R72261-R72298 were derived. These fragments can be used to detect autoantibodies against GAD, e.g. to diagnose and treat GAD-related autolimmune disorders, such as insulin dependant diabetes mellitus or stiff man disease.
07-DEC-1999
                    US5998366-A.
                                          Homo sapiens
                                                                therapy.
                                                                                      GAD65; glutamic acid decarboxylase 65;
                                                                                                             GAD65 fragment, peptide #13.
                                                                                                                                     03-APR-2000
                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New polypeptide fragments of glutamic acid decarboxylase - for diagnosis and treatment of auto:Immune disease, esp. insulin dependent diabetes, also related nucleic acid, vectors, antibodies, hybridoma(s) etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Clare-Salzler MJ, Erlander MG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24-AUG-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W09507992-A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Glutamic acid decarboxylase; GAD65; auotimmune disorders; insulin-dependant diabetes mellitus; stiff man disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Glutamic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R72273;
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                                                                           insulin, dependent diabetes mellitus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 11; Page 76; 100pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (REGC ) UNIV CALIFORNIA.
                                                                                                                                                                                Y59573 standard; peptide; 20 AA
                                                                                                                                                                                                                                                                                     Local Similarity
nes 9; Conser
                                                                                                                                                                                                                                                              12 DMVGLAADW 20
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                                                                                                                                                                                                                                        1 dmvglaadw 9
                                                                                                                                                                                                                                                                                                                                              20 AA;
                                                                                                                                                                                                                                                                                     Conservative
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                                                                                                                                   (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   93US-0123859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94WO-US09478
                                                                                                                                                                                                                                                                                   45.9%; Score 50;
100.0%; Pred. No.
Live 0; Mismatc
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GAD65) fragment.
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                                                                                                                                                                                                                                                                                     Mismatches
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                                                                          s; autoimmune disorder; IDDM;
Stiff man disease; diagnosis;
                                                                                                                                                                                                                                                                                               DB 16;
0.018;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DL,
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RESULT 13
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21-SEP-1990;
18-JUN-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GAD65) protein. The invention relates to a method of amellorating GAD associated autoimmune disorders by administering a GAD65 peptide to the patient. The method can be used for ameliorating GAD associated autoimmune disorders such as IDDM (insulin dependent diabetes mellitus) and Stiff man disease. GAD65 can also be useful for screening drugs that
                             WPI; 1998-348546/30.
N-PSDB; V33280.
Epitope tagging of genes, transcripts and polypeptides - using
                                                                                 Jarvík JW;
                                                                                                             (JARV/) JARVIK J W
                                                                                                                                                 09-DEC-1996;
                                                                                                                                                                                  09-DEC-1997;
                                                                                                                                                                                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                    Epitope tag WIGLD,
                                                                                                                                                                                                                                                                                                                                                                                                                     W70362;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     W70362 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       available from natural sources.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     alter GAD function, for generating monoclonal antibodies and in immunoassays. GAD65 is an effective diagnostic tool for predicting IDDM and the diagnostis quite easy. It is also possible to obtain much larger quantities of polypeptide via recombinant techniques than are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ameliorating glutamic acid decarboxylase associated autoimmune disorders such as insulin dependent diabetes mellitus and Stiff man disease -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09-APR-1997;
                                                                                                                                                                                                                   18-JUN-1998
                                                                                                                                                                                                                                                  WO9826094-A1
                                                                                                                                                                                                                                                                                                                   Target nucleotide; epitope; gene tagging; epitope tagging.
                                                                                                                                                                                                                                                                                                                                                                                    14-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 11; Column 42; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         disease
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12 DMVGLAADW 20
||||||||
1 dmvglaadw 9
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9; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   represents a fragment of the glutamic acid decarboxylase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       95US-0485725.
90US-0586536.
91US-0716909.
                                                                                                                                                 96US-0762106
                                                                                                                                                                                  97WO-US22472.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      Protein; 14
                                                                                                                                                                                                                                                                                                                                                    open reading frame
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    45.9%; Score 50;
100.0%; Pred. No.
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                                                                    Epitope tagging of genes, transcripts and polypeptides - usi-
oligonucleotide comprising a nucleotide sequence encoding the
epitope independently of the reading frame of the nucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                W70363;
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                                                                                                                                                                      N-PSDB;
                                                                                                                                                                                       WPI; 1998-348546/30.
                                                                                                                                                                                                                                                                                                                                   09-DEC-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO9826094-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Target nucleotide; epitope; gene tagging;
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Disclosure; Page 15; 46pp; English.
                                                                                                                                                                                                                                                                                  (JARV/) JARVIK J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14
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                                                                                                                                                                    V33280.
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3.7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  epitope tagging
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The epitope tag is encoded by the nucleotide sequence independently of the reading frame. The epitope and methods disclosed can be used for tagging of genes, transcripts and polypeptides. They can be used for e.g. discovering new genes, determining the size and abundance of proteins produced by newly discovered genes, tracking the movement of

Sequence

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Best Local S
Matches 8
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                                        The epitope tag is encoded by the nucleotide sequence independently of the reading frame. The epitope and methods disclosed can be used for tagging of genes, transcripts and polypeptides. They can be used for e.g. discovering new genes, determining the size and abundance of proteins produced by newly discovered genes, tracking the movement of proteins within cell membranes, monitoring receptor binding and internalisation of exogenous proteins, identifying the components of functional protein complexes, purifying proteins, discovering the function of proteins. The products, methods and uses are particularly used for proteins that are unstable, are difficult to purify, or share epitopes with a number of other proteins. The methods overcome the inefficiency of epitope tagging caused by reading frame obstacles and
                                                                                                                                                                                                                                                                                              Epitope tagging of genes, transcripts and polypeptides - using oligonucleotide comprising a nucleotide sequence encoding the epitope independently of the reading frame of the nucleotide
                                                                                                                                                                                                                                                                                                                                                                           WPI;
                                                                                                                                                                                                                                                  Disclosure; Page 15; 46pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-JUN-1998
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les 8; Conser
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3 tgldwtgl--dw 12
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DB; V33280.
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Pred. No.
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3.7;
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RESULT
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Best Local
                                                                                       Matches
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                                                                                                                                                             A library of small, efficient peptide biotinylation sequences (R65032-46) was generated by using a generic peptide (R65020) and a system known as the "peptides on plasmids" system. At some positions in the sequences, no clear consensus is apparent. At other residues, however, clear trends emerge. A protein can be biotinylated by constructing a recombinant DNA expression vector encoding a fusion protein, comprising a protein and a biotinylation peptide. A host cell, eg. E. coli is transformed with the vector and is cultured in the presence of biotin and a biotinylation enzyme, eg. BirA.
                                                                                                                                                                                                                                                                                             Production of biotinylated proteins by expression of recombinant DNA vector - which encodes a fusion prote comprising a protein and a biotinylated peptide.
                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                           Claim 10;
                                                                                                                                                                                                                                                                                                                                          WPI; 1995-090609/12
                                                                                                                                                                                                                                                                                                                                                               Schatz PJ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     biotinylation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Random biotinylation peptide 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                06-OCT-1995
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                                   metgldlrpiltgmkmdw 19
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tgldwtgl--dw 11
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                                                                                  l Similarity
7; Conservat
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tion; peptide; recombinant; fusion protein; small;
defined; purification; BirA; enzyme; biotin.
                                                                                                                                                                                                                                                                          Page 136;
                                                                                                                                           22 AA;
                                                                                      Conservative
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                                                                                               33.0%;
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Pred. No.
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6.5;
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RESULT 18
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Best Local
                                              Biotinylation enzyme; biotin-protein ligase; BirA; labelling; biotin carboxyl carrier protein; BCCP; Escherichia coli; fusion protein; identification; purification; diagnosis; research:
                                                                                                                                                                                                                                                                                                                                                                                     peptides W46648-49 are non-naturally occurring biotinylation peptides, derived from a library constructed to express peptides of the generic sequence W46623. The library was constructed using oligonucleotides V16118-20. The peptides contain a biotinylatable sequence motif, recognised by a biotinylation enzyme, e.g. biotin-protein ligase (BirA). The Corn terminus of the peptides can be covalently coupled to a protein that is incapable of being biotinylated by a biotin ligase. The peptides can be biotinylated in vitro or in vivo, especially with BirA biotin ligase, and used for the purification, immobilisation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Biotinylation peptide; biotinylation enzyme; biotin-protein ligase; BirA, biotin ligase; biotin; purification; immobilisation; labelling;
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          Escherichia coli. Synthetic.
                                                                                                 Biotinylation
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                                                                                                                         28-SEP-1999
                                                                                                                                                                                                                                                                                                                                                    Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Peptide(s) that can be biotinylated by biotin ligase - \operatorname{proteins} containing them
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nes 7; Conserv
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                                                                                                                                                                          standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                             or detection of proteins.
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                                                                                                                         (first entry)
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                                                                                                 peptide SEQ ID
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6.5;
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Best Local
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30-JUL-1993;
28-OCT-1997;
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                                                                                                                                                                               Human prorenin profragment immunogenic antigen
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
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           13-OCT-1998;
                                      13-OCT-1999;
                                                                                             EP994187-A1
                                                                                                                          Homo sapiens
                                                                                                                                                     Human; prorenin; renin; antibody; immunogen; antigen
                                                                                                                                                                                                                                                                   Y79295 standard; Peptide; 15 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Identification and biotinylation of proteins synthesized recombinant DNA techniques in vivo
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                                                                                                                                                                                                                                                                                                                                                     7 LSTGLD----MVGLAADW 20 : || | | : |: ||
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93US-0099991.
97US-0959512.
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RESULT 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This peptide is a human prorenin profragment immunogenic antigen comprising amino acid residues 27-41 of the profragment (see also 779293). The peptide was produced by solid-phase synthesis, with addition of a C-terminal Cys residue, and used to raise anti-peptide antibodies in New Zealand white rabbit. The invention provides a novel renin-active complex (I) formed from human prorenin and an anti-peptide antibody that specifically recognizes either (a) an amino acid sequence of at least 15 residues in the 33 residues between Itell and Arg43 of human prorenin profragment, or (b) an amino acid sequence comprising residues Itell-Arg26 of human prorenin profragment, or (c) an amino acid sequence comprising residues Gly27-Met41 of human prorenin profragment. In all cases, (I) may also include a second anti-peptide antibody that specifically recognises a sequence of 11 amino acids comprising Leui-Itell of human prorenin profragment. (I) is useful as a renin substitute. Greatly enhanced renin activity can be obtained by using a mixed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 5; Conser
                                                                                                                                                                                                                                                                  Subtilisin; allergy; human; bacterium; protease; epitope; detergent; cosmetic; textile; pet food industry; debridement treatment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2000-273528/24.
                                                                                                                                                                                                                                                                                                                B.lentus protease peptide F10.
                                                                                                                                                                                                                                                                                                                                                                          Y67045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 2; Page 6; 18pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        prorenin profragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel renin-active complex comprising human prorenin and at least one anti-peptide antibody with specific affinity to parts of the human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Murakami K, Nakamura
                                                       Estell D;
                                                                                                                                                                             21-OCT-1999.
                                                                                                                                                                                                                                      Bacillus lentus.
                                                                                                                                                                                                                                                                                                                                              15-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                      Y67045 standard; Peptide; 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 antibody
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (TOKW ) TOKIWA CHEM IND CO
(ISHI/) ISHIDA Y.
                                                                                                                   15-APR-1998;
                                                                                                                                               15-APR-1999;
                                                                                                                                                                                                         WO9953078-A2
                                                                                 (GEMV ) GENENCOR INT INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10 GLDMVGLAADW 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 gvdmarlgpew 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   consisting of equimolar amounts of anti-peptide antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15
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                                                                                                                                                                                                                                                                                                                                            (first entry)
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                                                                                                                   98US-0060854
                                                                                                                                               99WO-US08177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Suzuki F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              G.F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 32;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
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Modified non-human protease having reduced allergenicity

WPI; 2000-061971/05

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This sequence is a fragment of the Bacillus lentus protease. The invention relates to protease variants comprising a substitution at least 1 of the positions in a precursor protease corresponding to K170D, Y171Q and/or S173D of the Bacillus amyloliquefaciens subtilisin. The protease variant can be used in a cleaning composition (e.g. in detergents, in bar or liquid soap application, dish-care formulations, or contact lens cleaning solutions), in animal feed and for treating textiles (e.g. treating woult opervent felting). The protease variant may also be used for peptide hydrolysis, waste treatment, cosmetic (e.g. skin care) formulations, or as fusion-cleavage enzymes in protein production. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Peptides Y66983-Y67070 represent peptides derived from the Bacillus lentus subtilisin protein. The peptides were used for epitope mapping of the bacterial subtilisin. The invention relates to a method of reducing the allergenicity of a non-human protein, especially a bacterial protease such as subtilisin, by identifying an epitope on the non-human protein and replacing it by an analogous region from the human protein. The method is useful for producing proteins, including proteases, that are less likely to cause allergic reactions. Thus the invention can be employed for example in detergents, cosmetics, textile treatment, and pet food industries. The human subtilisin can be used pharmaccutically
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Subtilisin; protease variant; precursor protease; cleaning compositi detergent; liquid soap application; dish-care formulation; animal fe contact lens cleaning solution; peptide hydrolysis; waste treatment;
                                                                                                                                                                                                                       New mutant proteins having lower allergenic response in humans useful in cleaning compositions, animal feed and treating textiles -
                                                                                                                                                                                                                                                                          WPI; 2000-013100/01.
                                                                                                                                                                                                                                                                                                            Estell
                                                                                                                                                                                                                                                                                                                                          (GEMV ) GENENCOR INT INC
                                                                                                                                                                                                                                                                                                                                                                             15-APR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bacillus lentus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protease fragment peptide F10
                                                                                                                                                                                        Fig 6a; 43pp;
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                                                                                                                                                                                                                                                                                                            FA;
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                                                                                                                                                                                          English.
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Pred. No.
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21;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   animal feed;
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Sequence

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Best Local
                                               The present sequence is a fragment of the p53 binding protein WBP1, which can used to generate antibodies for the diagnosis of (pre)neoplastic diseases, and WBP1 (ant)agonists. The (ant)agonists augment or inhibit the formation of p53:WBP1 complexes and inhibit neoplasia or apoptosis, useful in the treatment of, e.g. reperfusion injury, myocardial infarction, stroke, traumatic brain injury, neurodegenerative diseases, aging, ischaemia, toxaemia, infection, AIDS and hepatitis. The WBP1 encoding cDNA, which was isolated from a HeLa cell derived cDNA library using the yeast two-hybrid system, can be used to generate probes for the diagnosis of (pre)neoplastic pathological conditions and genetic diseases, and the forensic identification of human individuals.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               p53; binding protein; WBP1; antibody; diagnosis; treatment; neoplastic; pre-neoplastic; disease; agonist; antagonist; augmentation; inhibition; complex formation; encoplasia; apopto reperfusion; injury; myocardial infarction; stroke; AIDS; traumatic brain; neurodegenerative; aging; ischaemia; toxaemia infection; hepatitis; probe; genetic; forensic identification;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New p53-binding polypeptide(s) prods. for screening assays and diseases, esp. neoplasia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19-MAY-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 8; Page 38; 90pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Fragment of p53 binding protein WBP1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1995-206934/27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bischoff JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-NOV-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-NOV-1994;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       p53UBC - used to in diagnosis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . 21;
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Best Local
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22-NOV-1993;
21-NOV-1994;
                                                                                                                                                                                                                 The present sequence represents an immunogenic peptide from WBP1 (cellular proliferation and neoplastic transformation) polypeptide, which can be used to screen bacteriophage antibody display libraries or to immunize a rabbit. WBP1 is a p53-interacting protein that can be used to screen for agents for diagnosis or treatment of cancer and genetic diseases and for forensic identification of human individuals. The p53 protein is a nuclear phosphoprotein involved in control of cellular
Y79452;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; WBP1; p53; cancer; interacting protein; screen; diagnosis; genetic disease; forensic identification; nuclear phosphoprotein; cellular proliferation; neoplastic transformation; p53UBC; immuno
                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                              Disclosure; Column 24; 68pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-MAR-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W57351 standard; peptide;
                   Y79452 standard; peptide; 19
                                                                                                                                                                                                        proliferation, and mutations in it are associated with human cancers.
                                                                                                                                                                                                                                                                                                                                      treatments
                                                                                                                                                                                                                                                                                                                                                                                             Bischoff JR,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human WBP1 immunogenic peptide SEQ ID NO:83
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                                                                                                                                                                                                                                                                                                                                                                                                                     (ONYX-) ONYX PHARM INC
                                                                                                                          Local Similarity
les 5; Conserv
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                                                                                                   1 PRYFNOLSTGLDMVG 15
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                                                                                                                                                                                                                                                                                                                                   p53-interacting protein - useful screening agents for ments of p53 related cancers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity 5; Conserv
                                                                                                                                                                                   18 AA;
                                                                                                                          Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                              Wu L;
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93US-0156571.
94WO-US13499.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9508-0399696
                                                                                                                                     28.4%;
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Pred. No. 41;
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Pred. No. 41;
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                                                                                                                          Mismatches
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cc rats (see Y79433). The mutation changes the charge of a residue conserved across all known Kat homologues, from human to caenorhabditis elegans. The invention discloses genes whose expression cc is modulated in SHR rat, which is an animal model for human cc is modulated in SHR rat, which is an animal model for human cc is modulated in SHR rat, which is an animal model for human cc is in the stroke-prone SHR (SHR-SP) and MKY animals were analysed considered vitable of genes which are differentially expressed in the charge cterization of genes which are differentially expressed in the codium dependent glucose cotransporter, CD36, aldolase A, atrial constituted as being potentially associated with hypertension, cobssity and insulin resistance. Kat was increased in abundance in consisting the present of hypertension QTI in chromosome 3. Hypotension may be treated by administering kynurenic acid. The polynucleotides and polypeptides cof the invention, including isolated proteins comprising the present constitution.
                       sequence, are used for treating, preventing and diagnosing ischemic and metabolic diseases and disorders, such as stroke, hypertension, diabetes and obesity, especially insulin resistivity, dyslipidemia and ischemic stroke (all claimed). The polynucleotides may also be used in gene therapy and antisense therapy protocols.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             hypertension; stroke; diabetes; insulin resistance; obesity; dyslipidemia; anorectic; hypotensive; cerebroprotective; vasotropic; antidiabetic; antilipemic; gene therapy; diagnos: mutant; mutein; chromosome 3
                                                                                                                                                                                                                                                                                                                                                                                                                          This sequence represents amino acids 16-34 of kynurenine aminotransferase (KAT) from a spontaneously hypertensive rat (SHR) This region of KAT carries an amino acid substitution (E276) when compared to the corresponding region in control Wistar Kyoto (WKY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 2; Fig 4B; 79pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel genes encoding e.g. CD36, SGLT2, and kynurenine aminotransferase, which are predictive and therapeutic for stroke, hypertension, diabetes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2000-303450/26
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rattus
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Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "corresponds full-length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       to residues 16-34 protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene therapy; diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of.
                                                                                                                                                                                                                                                                                                                                                                                                                                              (SHR).
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Query Match Best Local Matches

28.4%; Similarity 46.2%; 6; Conservation

Score 31; Pred. No. Mismatches

DB 43;

Length 19 Indels

0

Gaps

6

fgkltkgydvvnl 18

4 FNQLSTGLDMVGL 16

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RESULT
Y91936
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                                                                                                                                                                 The present sequence is hskec2 peptide, residues 153-172, a substrate CC which was not phosphorylated by hskec2, a human serine kinase. Hskec2 is in the same supergene family as the mammmalian protein having CC homologous pairing and strand transfer activities, RAD51 and was CC isolated because of its homology to the homologous pairing and strand CC transfer protein of Ustilago maydis. In particular, hskec2 CC phosphorylates several proteins that control the cell cycle, especially CC cyclin E and p53. The invention permits the phosphorylation of cell CC cyclin E and p53. The invention permits the phosphorylation of cell CC cyclin E and p53. The invention permits the phosphorylation at sites that are physiologically relevant. The CC cycle confrol proteins at sites that are physiologically relevant. The CC or chimera of these proteins. In particular the mutein has the sequence CC of a Rec2 kinase containing other than a Tyr at position 163. The CC invention comprises a method of phosphorylating a serine-containing CC substrate comprises a method of phosphorylating a serine-containing CC cupic pand Rec2 kinase or a mammalian Rec2 and measuring the level of phosphorylation. The method is useful for discovering compounds which contains the specific antagonists or agonists of Rec2.
                                   Best Local Similarity
Matches 5; Conserv
                                                                           Query Match
                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Phosphorylating a serine-containing substrate by incubating it with adenosine triphosphate and Rec2 kinase and measuring the level of phosphorylation, useful for discovering specific antagonists or agonists of Rec2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2000-283562/24.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HsRec2; serine kinase; homologous pairing; strand transfer; RAD51; phosphorylation; cyclin E; p53; cell cycle; substrate.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HsRec2 peptide residues 153-172.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 3; Page 14; 41pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Havre PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (UYJE-) UNIV JEFFERSON THOMAS. (CORR ) CORNELL RES FOUND INC. (KIME-) KIMERAGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Y91936 standard; Peptide; 20 AA.
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1 PRYFN 5
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                                                                                                                                   20 AA;
                                     28.4%; Score 31; DB 21; ilarity 100.0%; Pred. No. 46; Conservative 0; Mismatches 0
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Search completed: February 5, 2001, 10:47:34 Job time: 628 sec
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re greater than or equal to the score of the result being printed,
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Q9tqr9 mamuthus p
Q9zyv8 aspilota sp
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Q9uwh4 pyrococcus
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Q41588 human immun
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Q9nz67 homo sapien
Q13660 homo sapien
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Q9S630
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Best Local Similarity
                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.

Urbach E., Chisholm S.W.;

"Genetic diversity in Prochlorococcus posorted from the Sargasso Sea and Gulf St Limnol. Oceanog. 43:1615-1630(1998).

EMBL; AF07017; ADD20793.1; NON TER

SEQUENCE 19 AA; 2207 MW; 63744292AB2
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Q9S625;
Q1-MAY-2000
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                          Q9S630 PRELIMINARY;
Q9S630;
Q1-MAY-2000 (TIEMBLTel. 13,
Q1-MAY-2000 (TIEMBLTel. 13,
 PETB.
                 CYTOCHROME
                                                                                                                                                                                                                                                                                                                                                                                                                                 Bacteria; Cyanobacteria; Prochlorococcus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CYTOCHROME B
                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=1220;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Prochlorococcus sp.
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                B
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O (TrEMBLIEL. 13, 1)
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B (FRAGMENT).
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33.3%;
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3.6e+02;
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Q9qv83 rattus sp.
Q9prp2 gallus gall
P82108 mythimna un
Q9mx47 oryzias lat
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Q9s8e9 zea mays (m
Q9r5d0 pseudomor-
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Ografo pylaiella 1
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Q9mgkl capra ibex
Q94680 polyandroca
Q9zyxl diospilus s
Q16092 homo sapien
Q9r5r4 mycoplasma
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Q9jk04 mus musculu
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Minimum DB Maximum DB

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Q9ZYW9;
Q1-MAY-1999;
Q1-MAY-1999;
Q1-MAY-1999;
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Urbach E., Chiang
The Sard
                                                                                                                                                                                              O63334 PRELIMINARY; PRT; 23 AA. Q63334; PRT; 25 AA. Q63334; PRT; 25 AA. Q6334; PRT; 26 AA. Q6334; PRT; 27 AA. Q6334; PRT; 28 AA
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01-MAY-1999 (TrEMBLrel. 10, Last sequence up
01-MAY-1999 (TrEMBLrel. 10, Last annotation
CYTOCHROME OXIDASE II (FRAGMENT).
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NCBI_TaxID=10116;
[1]
                                                                                   Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=99152621; PubMed=10028295; Dowton M., Austin A.D.;
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Bacteria; Cyanobacteria;
Prochlorococcus.
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Biol. Evol. 16:298-309
L; AF034592; AAC79740.1;
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Q9X3F0;
01-NOV-1999
                                                                                                                                                                  Q63992 PRELIMINARY; PRT; Q63992; O1-NOV-1996 (TrEMBLrel. 01, Created) O1-NOV-1996 (TrEMBLrel. 15, Last sec 01-OCT-2000 (TrEMBLrel. 15, Last and HOX3.2 HOMEOBOX HOMOLOG (FRAGMENT).
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Prochlorococcus,
NCBI_TaxTD-1000
                                                                                Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=10116;
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Urbach E., Chisholm S.W.;

"Genetic diversity in Prochlorococcus sorted from the Sargasso Sea and Gulf Limnol. Oceanog. 43:1615-1630(1998).

EMBL; AF070148; AAD20767.1; -.
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01-NOV-1999 (TrEMBLrel. 12,
01-NOV-1999 (TrEMBLrel. 12,
CYTOCHROME B (FRAGMENT).
SEQUENCE FROM N.A.
MEDLINE-94271262; Pi
Iimura T., Oida S.,
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Northemann W., Heisig W., Kunz D., Heinrich P.C.;
"Molecular cloning of cDNA sequences for rat alpha 2-measurement of its transcription during experimental Biol. Chem. 260:6200-6205(1985).
EMBL; M8439; AAA41594.1; -.
INTERPRO; IPR001599; -.
                                                                                                                                                     Rattus norvegicus (Rat)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PFAM; PF00207; A2M; 1
NON_TER 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID-1220;
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5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
3; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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  PubMed=7911662;
., Takeda K., Maruoka
                                                                                                                                                                                                                                                                                                                                                                                            12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2247 MW;
                                                                                                          Chordata;
Rodentia;
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                                                                                                                                                                                                                                         Created)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 27; DB 11;
Pred. No. 9.4e+02;
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                                                                                                          Craniata; Veri
Sciurognathi;
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2;
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Stream.";
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thi; Muridae;
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    Sasaki
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al inflammation.
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Best Local S
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01-MAY-1999
01-MAY-1999
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01-MAY-2000
01-MAY-2000
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01-MAY-1999 (TrEMBLrel. 10, Last sequence up
01-MAY-1999 (TrEMBLrel. 10, Last annotation
CYTOCHROME OXIDASE II (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; AF1
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NON_TER
SEQUENCE
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EMBL; AF154874; AAF12750.1; -.
EMBL; AF154873; AAF12749.1; -.
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EMBL; S71317; AABS1008.1; -.
HSSP; P02833; 9ANT.
  SEQUENCE FROM N.A. MEDLINE-99152621;
                                                                                     Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta; Pterygota; Neoptera; Endopterygota; Hymenoptera; Apocrita; Ichneumonoidea; Braconidae; Alysiinae; Aspilota.
                                                                                                                                                                                                                                                                                                             8AXZ60
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Mammalia; Eutheria;
NCBI_TaxID=37349;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-MAY-2000 (TERMBLEEL. 13, Created)
01-MAY-2000 (TERMBLEEL. 13, Last seq)
01-MAY-2000 (TERMBLEEL. 13, Last ann)
VON WILLEBRAND FACTOR (FRAGMENT).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mammuthus primigenius (Siberian woolly mammoth).
Eukaryota: Metazoa: Chordata; Craniata; Vertebrata;
Mammalia: Eutheria; Proboscidea; Elephantidae; Mammu
                                                                  NCBI_TaxID-61200;
                                                                                                                                                                              Aspilota sp.
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                                                                                                                                                                                                                                                                                                             PRELIMINARY;
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  PubMed-10028295;
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1.6e+03;
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Best Local S
Matches 5
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O34195;
O1-JAN-1998
O1-JAN-1998
O1-MAY-2000
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SEQUENCE
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Q9ZYV7;
Q9ZYV7;
Q9ZYV7;
Q1-MAY-1999 (TrEMBLrel. 10, Last s
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MEDLINE=97373904; PubMed=9230387; Sumner J.W., Nicholson W.L., Mass "PCR amplification and comparison"
                                                                                                                                                  Ehrlichia risticii.
Bacteria; Proteobacteria; alpha subdivision; Rickettsiales;
Rickettsiaceae; Ehrlichieae; Ehrlichia.
NCBI_TaxID-950;
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NCBI_TaxID-32387;
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"Evolutionary dynamics of a mitochondrial rearrangement 'hot the Hymenoptera.";
Mol. Biol. Evol. 16:298-309(1999).
EMBL; AF014603; AAC79751.1; -.
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Mol. Biol. Evol. 16:298-309(1999).
Mol. AF034604; AAC79752.1; -.
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MEDLINE=99152621; PubMed=10028295;
Dowton M., Austin A.D.;
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Evolutionary dynamics of a mitochondrial rearrangement 'hot spot'
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01-MAY-2000
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MEDLINE-96146528; PubMed-8550513; Heider J., Mai X., Adams M.W.; "Characterization of 2-ketoisovalerate ferredox new and reversible coenzyme A-dependent enzyme fermentation by hyperthermophilic archaea."; J. Bacteriol. 178:7807-877(1996).
SEQUENCE 15 AA; 1727 MW; 42363C008C8A9CFA C
                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A., Du Y., Wang H.T.;
Leng Y., Chen X.Z., Du Y., Wang H.T.;
Leng Y., Chen X.Z., Du Y., Wang H.T.;
"Cloning of NS2 cDNA of Hepatitis C virus (HCV) and comp
quasispecies in a HCV carrier";
Submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AFIT5472; AAD50790.1;
SEQUENCE 25 AA; 2637 MW; 5684D08FA4DAC202 CRC64;
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Q958K7;
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Q1-JUN-2000 (TREMBLrel. 14, Last annotation update)
Q1-JUN-2000 (TREMBLREL. 14, Last annotation update)
S-ADENOSTI-L-METHICHIE:NORCOLAURINE 6-O-METHYLTRANSFERASE,
NORCOCLAURINE 6-O-METHYLTRANSFERASE (EC 2.1.1.-) (FRAGMENT).
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01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
MHC CLASS II H 2EK NATURAL LIGAND (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                             Schild H., Gruneberg U., Pougialis G., Wa
Stevanovic S., Rammensee H.G.;
"Natural ligand motifs of H-2E molecules
illustrate homology to HLA-DR molecules."
Int. Immunol. 7:1957-1965(1995).
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Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;
Magnoliophyta; eudicotyledons; Ranunculales; Ranunculaceae; Coptis.
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Sato F., Tsujita T., Katagiri Y., Yoshida
"Purification and characterization of S-a
norcoclaurine 6-O-methyltransferase from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=10095;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE-96360157; PubMed-8746565;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
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                                                                 EYVTLKK 18
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EFGTLKK 9
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; 1595 MW; 8762BC05939B6C4C CRC64
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Rodentia;
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71.48;
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2; Mismatches
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                                                                                                                                       Score 24; DB
Pred. No. 2.3e
1; Mismatches
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rom cultured Coptis japonica
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     Query Match
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Best Local S
Matches 4
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O99389;
O1-MAY-1999 (TrEMBLrel. 10, C;
O1-MAY-1999 (TrEMBLrel. 10, L;
O1-MAY-1999 (TREMBLREL. 10, L;
ATPASE SUBUNIT 6 (FRAGMENT).
Ovis aries (Sheep).
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Gonnor R.I., Korber B.T.M., Graham B.S., Hahn B.H., Ho D.D.,
Walker B.D., Neumann A.U., Vermund S.H., Mestecky J., Jackson S.,
Walker B.D., Neumann A.U., Vermund S.H., Mestecky J., Jackson S.,
Well S., Kunstman K.J., McDonald D.,
McWilliams N., Trkola A., Moore J.P., Wolinsky S.M.;
"Immunological and virological analyses of persons infected by human
immunodeficiency virus type 1 while participating in trials of
recombinant gp120 subunit vaccines.";
J. Virol. 72:1552-1576(1998).
EMBL; U84837, AAC58876.1;
EMBL; U84837, AAC58876.1;
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01-JAN-1998 (TrEMBLrel. 05, Created)
01-JAN-1998 (TREMBLrel. 05, Last sequence update)
01-OCT-2000 (TREMBLrel. 15, Last annotation update)
ENVELOPE GLYCOPROTEIN (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea, Bovidae; Caprinae; Ovis.

NCBI_TaxID-9940;
                                                                                                                           Mitochondrion.
NON_TER 22
SEQUENCE 22 AA;
                                                                                                                                                                                               "Rapid communication: nucleotide sequence tRNA(Lys) and ATPase8 mitochondrial genes. J. Anim. Sci. 76:2207-2208(1998). EMBL; ARD039171; AAD05068.1; -.
                                                                                                                                                                                                                                                                                                        TISSUE-PERIPHERAL BLOOD;
MEDLINE-98403943; PubMed-9734874;
Tartaglia M., Saulle E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae; Lentivirus.
NCBI_TaxID-11676;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mitochondrion.
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     Similarity 46. 6; Conservative
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2050 MW;
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2453 MW;
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Last sequence up
Last annotation
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Score 24; DB 8;
Pred. No. 2.8e+03;
2; Mismatches 5
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Pred. No.
                                                                                                                              215FF87BDF0EA1C8 CRC64;
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2.3e+03;
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RESULT OCCUPANT OCCUP
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Matches 5; Conserv
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Wu Z.Y., Wang N., Murong S
"Missense mutations of exo
Chinese patients.";
Chung-Hua I Hsueh I Chuan
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Q9NZ67;
01-OCT-2000
01-OCT-2000
01-OCT-2000
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SEQUENCE
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Q13660;
Q1-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-NOV-1998 (TrEMBLrel. 08, Last annotation update)
MANNOSE 6-PHOSPHATE/INSULIN-LIKE GROWTH FACTOR-II RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chung-Hua
EMBL; AF21
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Mammalia; Eutheria;
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
MEDLINE-96083596; PubMed-7493029;
De Souza A.T., Hankins G.R., Washing
"M6P/IGF2R gene is mutated in human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATP7B (FRAGMENT)
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7 VEVLLEYV 14
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                                                                                                                                                                                                                                                                                                                 of heterozygosity.";
Genet. 11:447-449(1995).
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AF218354; AAF25685.1; -.
                                                                                                                                                                                                                                                                               S80783; AAB35664.1;
                                                           Similarity
4; Conser
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3; Mismatches
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01-MAY-2000 (TrEMBLrel. 13,
01-MAY-2000 (TrEMBLrel. 13,
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SEQUENCE
                                                                                                                                                                                                                                                                                                                Mitochondrion.
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"Rapid communication: nucleotide sequence of
red deer tRNA(Lys) and ATPasse mitochondrial
J. Anim. Sci. 77:3398-3399(199).
EMBL; AF104681; AAF43479.1; -
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Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora;
Bovidae; Caprinae; Rupicapra.
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EMBL: AJ012726; CAA10149.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE=PERIPHERAL BLOOD;
MEDLINE=20104876; PubMed=10641890;
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Bacteria; Proteobacteria;
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ilarity 46.2
Conservative
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Pred. No. 3.2e
3; Mismatches
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                                                                                                                DB 8;
3.2e+03;
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genes.";
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cora; Bovoidea;
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Robison K.;
Submitted (SEP-1994) to t)
SMBL; UI5183; AAA63011.1;
SMBL; UI5183; AAA63211.1;
SMBL; UI5183; AAA63211.1;
Q9ZYX0;
Q9ZYX0;
Q1-MAY-1999
                                                                                                                                                                                                                                                                                                       01-NOV-1996
01-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q28200 PRELIMINARY; PRT; 24 AA. Q28200, Q28200, Q1-NOV-1996 (TrEMBLrel. 01, Created) 01-NOV-1996 (TrEMBLrel. 01, Last sequence update) 01-NOV-1998 (TrEMBLrel. 08, Last annotation update) TYROSINASE-RELATED PROTEIN-1 (FRAGMENT).
                                                                                                                                                                                                                                                      Mycobacterium leprae.
Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
Actinomycetales; Corynebacterineae; Mycobacteriaceae; Mycobacterium.
NCBI_TaxID-1769;
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
Bovidae; Bovinae; Bos.
NCBI_TaxID-9913;
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MEDLINE-96314791; PubMed-
Nonneman D., Shibuya H.,
NA BStUI PCR/RFLP in the
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8; Conservative
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(TrEMBLrel.
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9 AA; 2183 MW
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bovine tyrosinase-related
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Pred. No. 3
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Q9RQ22;
Q1-MAY-2000
Q1-MAY-2000
Q1-MAY-2000
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Tillmann H., Stein S., Liehr T., Eschric
"Structure and chromosomal localization
fructose-1,6-bisphosphatase genes.";
Gene 247:241-253(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
MCBI_TaxID=10090;
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MEDLINE-99152621; PubMe
Dowton M., Austin A.D.;
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Mol. Biol. Evol. 16:298-309(1999).
EMBL; AF034591; AAC79739.1; -.
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Pred. No. 3.4e+03;
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Salmonella.
NCBI_TaxID=601;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Morrow B.J., Graham J.E., Curtiss R. III.;
"Genomic subtractive hybridization and selective capture of
"transcribed sequences identify a novel Salmonella typhimurium fimbrial
operon and putative transcriptional regulator that are absent from the
Salmonella typhi genome.";
Infect. Immun. 67:5106-5116(1999).
EMBL; AF134977; AAD54116.1; -.
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Pred. No. 3.4e+03;
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VGLG_RABVA
ATPY_SOLTU
PSAJ_PEAJ
CH10_CLOPA
MIFS_BRAJA
COX6_NEUCR
CPXX_RHORH
GTS2_ASCSU
GCMS_PECA
COX6_NEUCR
CPXB_METBA
SMBP_RAT
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RESULT TO SOLUTION OF SOLUTION	A KO G	SO SIGNATURE SERVICE S	RN COOC	
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R MAIZE-ZDPAGE; P80626; COLEOPTILE.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pennock J.L., Behnke J.M., Bickle Q.D., Devaney E., Grencis R.K., Isaac R.E., Joshua G.W.P., Selkirk M.E., Zhang Y., Meyer D.J.; Isaac R.E., Joshua G.W.P., Selkirk M.E., Zhang Y., Meyer D.J.; Republic Proposed 
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15-JUL-1999 (Rel. 38, Last sequence update)
01-CCT-2000 (Rel. 40, Last annotation update)
L-DOPACHROME-METHYL ESTER TAUTOMERASE (MACROPHAGE MIGRATION INHIBITORY
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Eukaryota; Metazoa; Nematoda; Enoplea; Trichocephalida;
Trichocephalina; Trichinelloidea; Trichinellidae; Trich
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Pernollet J.-C., Zivy M., de Vienne D.;
"The maize two dimensional gel protein database:
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SEQUENCE.
TISSUE-COLEOPTILE;
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NTERPRO; IPR001398; -.
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36, Created)
36, Last seq
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RESULT 8
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DT 01-AUG
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01-AUG-1990
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SEQUENCE
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-!- FUNCTION: CLEAVES A WIDE RANGE OF DIPEPTIDES AND
-!- COFACTOR: COBALT.
                                                                                                                                                                                                                                                                                                 album NM.";
Arch. Microbiol. 154:304-307(1990)
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Rogers A.H., Gunadi A.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                 01-0CT-1993 (Rel. 27, Created)
01-0CT-1993 (Rel. 27, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
MALATE DEHYDROGENASE (EC 1.1.1.37) (FRAGMENT)
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NON_TER 20 20
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Bacteria; Green
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                                                                                                                                                                                                                                                                                                                                                            EQUENCE
                                                                                                                                                                                                                                                    I- CATALYTIC ACTIVITY: L-MALATE +
I- SUBUNIT: HOMODIMER.
I- SIMILARITY: BELONGS TO THE LDH
IR; A60689; A60689.
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                                                                                                                 11 LEYVT 15
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                                                                                           IEYLT
                                                                                                                                      3; Conserv
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(Rel. 15, Last seq
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non-sulfur
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C 3.4.11.-) (AP) (FRAGMENT).
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update)
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Matches 5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PA22_BOTSC STANDARD; PRT; 25 AA. P80963; 01-NOV-1997 (Rel. 35, Created) 01-NOV-1997 (Rel. 35, Last sequence update) 15-JUL-1998 (Rel. 36, Last annotation update) PHOSPHOLIPASE A2 HOMOLOG, MYOTOXII II (FRAGMENT). Bothriechis schlegelii (Eyelash viper). Eukaryota; Metazoa; Chordata; Cranlata; Vertebrata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Spinacia oleracea (Spinach).
Chloroplast.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE-90242987; PubMed-2185953; Inoue Y.; Ikeuchi M., Hirano A., Hiyama T., Inoue Y.; "Polypeptide composition of higher plant photo Identification of psat, psad and psak gene profess Lett. 263:274-278(1990).

-I- FUNCTION: MAY HELP IN THE ORGANIZATION OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;
Magnoliophyta; eudicotyledons; core eudicots; Caryophyllidae;
Caryophyllales; Chenopodiaceae; Spinacia.
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                                                                PFAM; PF00068; phoslip; 1.
PROSITE; PS00118; PA2_HIS;
PROSITE; PS00119; PA2_ASP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -i- SIMILARITY: BELONGS TO PIR; S09732; S09732
Chloroplast; Photosystem I;
SEQUENCE,
                                                                                                                                                                                                                                                                                    "Isolation and characterization of a myotoxic the venom of the arboreal snake Bothriechis (F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lepidosauria; Squamata; Scleroglossa; Serpentes;
Viperidae; Crotalinae; Bothriechis.
                                                                                                                                                                                                                                          Arch.
                                                                                                                                                                                                                                                              from Costa Rica."
                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-97209510; PubMed-9056257;
                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE-VENOM;
                        NON_TER
                                                                                                                                                                                                                                                                                                                                                            Angulo Y.,
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                                                                                                                                                NTERPRO;
                                               oxin; Venom;
                                                                                                                                                                    SSP; P24605; 1CLP
                                                                                                                                                                                                                   - FUNCTION: THIS
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                                                                                                                                                IPR001211;
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16
16 AA;
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                                                                                                                                                                                                                                                                                                                                                               Chaves
                                               Multigene family.
                                                                                                                                                                                                                   Biophys. 339:
THIS MYOTOXIC
                                                                                                                                                                                          BELONGS
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1851 MW;
    2725
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    MW.
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                                                                                                                                                                                                                   339:260-266(1997)
OXIC PROTEIN LACKS
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Pred. No. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A1B8DA6E26E7D110 CRC64
    C578AB09235EA02A CRC64;
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                                                                                                                                                                                          THEIN LACKS ENZYMATIC ACTIVITY PHOSPHOLIPASE A2 FAMILY.
                                                                                                                                                                                                                                                                                                                                                            Rucavado A., Gutierrez J.M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                update)
IX (PSI-J) (FRAGMENT)
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STANDARD;

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Best Local Similarity
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ULA4_HUMAN
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Best Local S
Matches 3
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CIP1_MYTED
P13736;
01-JAN-1990
01-JAN-1990
15-DEC-1998
                                                                                                                                                                         NON_TER
SEQUENCE
                                                                                                                                                                                            SWISS-2DPAGE; P3
                                                                                                                                                                                                                "Human liver protein map: a reference microsequencing and gel comparison."; Electrophoresis 13:992-1001(1992).
-i- MISCELLANEOUS: ON THE 2D-GEL THE D PROTEIN IS: 6.2, ITS MW IS: 28 KDA SWISS-2DPAGE; P30039; HUMAN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-APR-1993 (Rel. 25, Created)
01-APR-1993 (Rel. 25, Last sequence update)
01-JUL-1993 (Rel. 26, Last annotation update)
UNKNOWN PROTEIN FROM 2D-PAGE OF LIVER TISSUE (SPOT 32) (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ULA4_HUMAN
P30039;
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MOD_RES 6
SEQUENCE 6 AA; 6:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mytilus edulis (Blue mussel).
Eukaryota; Metazoa; Mollusca; Bivalvia; Pteriomorphia; Mytiloida;
Mytiloidea; Mytilidae; Mytilus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JAN-1990 (Rel. 13, Created)
01-JAN-1990 (Rel. 13, Last sequence update)
15-DEC-1998 (Rel. 37, Last annotation update
CONTRACTION-INHIBITING PEPTIDE I (MIP I).
6 PVFV 9
                                                                                                                                                                                                                                                                                                                                                         MCDLINE-93162045; PubMed-1286669;
HOChStrasser D.F., Fruttger S., Paquet N.,
Pasquali C., Sanchez J.-C., Tissot J.-D., 1
Appel R.D., Hughes G.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-LIVER;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; I
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE-PEDAL GANGLION;
MEDLINE-88240357; PubM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hirata T., Kubota I., Iwasawa N., Takabatake I., Ikeda T., Muneoka Y
"Structures and actions of Mytilus inhibitory peptides.";
siochem. Biophys. Res. Commun. 152:1376-1382(1988).
-i- FUNCTION: INHIBITORY ACTION ON CONTRACTIONS IN SEVERAL MOLLUSCAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE.
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                                                                                                                                                                      14 AA;
                                                          Conservative
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                                                                                                                                                                           1614 MW;
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72C9C68775B81000 CRC64;
                                                       Score 19; DB
Pred. No. 2.26
2; Mismatches
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Pred. No. 8.9e+04
2; Mismatches
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                                                                                                                                                                                                                                             THE DETERMINED 28 KDA.
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                                                                             DB 1;
2.2e+03;
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6 PVFVL 10

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MIF_PIG
PR0928;
PR0928;
PR0928;
PR0928;
PR0928;
PR01-NOV-1997 (Rel. 35, Created)
PR01-NOV-1997 (Rel. 35, Last sequence update)
PR01-NOV-1997 (Rel. 35, Last annotation update)
PR01-NOV-1997 (Rel. 35, Created)
PR01-NOV-1997 (Rel. 35, Last sequence update)
PR01-NOV-1997 (Rel. 35, Last sequence updat
                                                                                                                                                                                                                                                           SET WERE COCCORED BY THE SECOND SECON
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Best Local Similarity 50.0
"""+ hes 4; Conservative
Query Match
Best Local Similarity
Matches 3; Conserv
                                                                                                                                                                                                                                                 NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Flengsrud R., Skjeldal L.;

"Two-dimensional gel electrophoresis separation and N-terminal sequence analysis of proteins from Clostridium pasteurianum W5 Electrophoresis 19:802-806(1998).

-i- MISCELLANEOUS: ON THE 2D-GEL THE DETERMINED PI OF THIS UNK PROTEIN IS: 4.7, ITS MW IS: 45.7 KDA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Clostridium pasteurianum,
Bacteria; Firmicutes; Bacillus/Clostridium group;
Clostridium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         UN04_CLO
P81349;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HSSP; P14174; 1MIF.
INTERPRO; IPRO01398; -.
PROSITE; PS01158; MIF;* PARTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IN HOST DEFENSE (BY SIMILARITY).
-1- SUBUNIT: HOMOTRIMER (BY SIMILARITY).
-1- SIMILARITY: BELONGS TO THE MIF FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                               Macrophage; Inflammatory response;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
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MEDLINE=98291870; PubMed=9629918;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  UNKNOWN PROTEIN CP 4 FROM 2D-PAGE
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15-JUL-1998 (Rel.
15-JUL-1998 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
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4 PIFI 7
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                                                                                                                                                                                                                                                           20 AA;
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                   Conservative
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36, Last annotation update)
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2147
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                                                           19.2%;
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         Score 19; D
Pred. No. 3.
2; Mismatche
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pred. No. 2.2e+03
1; Mismatches
                                                                                                                                                                                                                                                           3517AF60F3012A61 CRC64;
                   Mismatches
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                                                                DB 1;
3.2e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A
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                                                                                                       Length 20
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                   Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Euteleostomi;
Sus.
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                   Gaps
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Best Local S
Matches 3
Herz U., Grohmann L.;
Submitted (DEC-1996) to the SWISS-PROT data bank.

-i- FUNCTION: TRANSFER OF ELECTRONS FROM NADH TO THE RESPIRATORY CHAIN. THE IMMEDIATE ELECTRON ACCEPTOR FOR THE ENZYME IS BEL:
TO BE UBIQUINONE.
-i- CATALYTIC ACTIVITY: NADH + UBIQUINONE = NAD(+) + UBIQUINOL.
-i- SUBUNIT: COMPLEX I IS COMPOSED OF ABOUT 30 DIFFERENT SUBUNIT:
-i- SUBCELLULAR LOCATION: MATRIX SIDE OF THE MITOCHONDRIAL INNER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE-98163340; PubMed-9504812;
Dunn M.J., Corbett J.M., Wheeler C.H.;
"HSC-2DPAGE and the two-dimensional gel electrophoresis database
dog heart proteins.";
Electrophoresis 18:2795-2802(1997).
-!- CATALYTIC ACTIVITY: SUCCINATE + COA + GTP - SUCCINYL-COA + GD
                                                                                                                                                                                    Solanum tuberosum (Potato).
Eukaryota; Viridiplantae; Embryophyta; Tracheophyta;
Magnoliophyta; eudicotyledons; core eudicots; Asteric
                                                                                                                                                                                                                                01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation update)
NADH-UBIQUINONE OXIDOREDUCTASE 16 KDA SUBUNIT (EC 1.6.99.3) (COMPLEX I-16KD) (CI-16KD) (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                  SOLIU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ligase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-JUL-1998 (Rel. 36, Created)
15-JUL-1998 (Rel. 36, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
15-JUL-1999 (Rel. 38, Last annotation update)
PUTATIVE SUCCINYL-COA LIGASE [GDP-FORMING] BETA-CHAIN (EC 6.2.1.4)
[SUCCINYL-COA SYNTHETASE, BETA CHAIN) (SCS-BETA) (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUCB_CANFA P99507;
                                                                                                                             STRAIN-CV. BINTJE; TISSUE-TUBER;
                                                                                                                                                                          Solanales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -!- SUBCELLULAR LOCATION: MITOCHONDRIAL (BY SIMILARITY).
-!- SIMILARITY: TO OTHER BETA SUBUNITS OF SUCCINYL-COA SYNTHETASE,
OF MALATE--COA LIGASE AND TO ATP CITRATE-LYASE.
HSC-2DPAGE; P99507; DOG.
HSC-2DPAGE; P99507; DOG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -1- SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA CHAIN (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -!- PATHWAY: SUBSTRATE LEVEL PHOSPHORYLATION STEP OF THE TRICARBOXYLIC
                                                                                                                                               SEQUENCE.
                                                                                                                                                                                                                                                                                                                    NUO7_SOLTU
P80730;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
3; Conserv
                                                                                                                                                                         Solanaceae; Solanum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20 AA;
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27.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 19;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BE8AEFD54DBDAC2E CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                         eudicots; Asteridae;
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3.2e+03;
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                                                                ENZYME IS BELIEVED
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Canis.
                                                                                                                                                                                         Spermatophyta;
dae; euasterids
                    SUBUNITS
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                                                ATPY_SOLTU STANDARU
P80497;
01-FEB-1996 (Rel. 33, C
01-FEB-1996 (Rel. 33, I
01-NOV-1997 (Rel. 35, I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Oxidoreductase;
NON_TER 22
SEQUENCE 22 AA
ur-NOV-1997 (Rel. 35, Last sequence update)
ATP SYNTHASE 6 KDA SUBUNIT, MITOCHONDRIAL (EC
Solanum tuberosum (Potato).
Eukaryota; Viridiplantae; Embryophuta.
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P15199;
01-APR-1990
                                                                                                                                                                                                                                                            NON_TER
SEQUENCE
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                                                                                                          SOLTU
    Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Asteridae; euasterids
                                                                                                                                                                                                                                                                                                                 EMBL; X13357; CAA31737.1; PIR; S07817; S07817.
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"Sequence of the 3386 3' nucleotides crabbes virus: structural similarities in transcription.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Viruses; ssRNA negative-strand
Rhabdoviridae; Lyssavirus.
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01-APR-1990 (Rel. 14, Last sequence update)
01-APR-1990 (Rel. 14, Last annotation update)
SPIKE GLYCOPROTEIN PRECURSOR (FRAGMENT).
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                                                                                                                                                                                                                                                                                  CHAIN
                                                                                                                                                                                                                                                                                            Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                              Biochimie 70:1019-1029(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=89150295; PubMed=3147698;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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Pred. No. 3.5e+03;
1; Mismatches 0
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Pred. No. 3.5e+03;
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RESULT 19
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15-JUL-1998
15-JUL-1998
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01-AUG-1990
15-DEC-1998
PHOTOSYSTEM
                                                                                                                                                                                                                                                                                                                                                                                                                 PSAJ_PEA
P17229;
                                                                                                                                                                         NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PIR; S09733; S09733.
Chloroplast; Photosystem
6 >13
                                                                                                                                                                                                                                       MEDLINE-90242987; PubMed-2185953; Inoue Y.; Ikeuchi M., Hirano A., Hiyama T., Inoue Y.; "Polypeptide composition of higher plant photosystem I Identification of psaI, psaJ and psaK gene products."; FEBS Lett. 263:274-278(1990).

-i- FUNCTION: MAY HELP IN THE ORGANIZATION OF THE PSAE
                                                                                                                                                                                                                                                                                                            Chloroplast.
Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;
Eukaryota; eudicotyledons; core eudicots; Rosidae; eurosids.I;
Fabales; Fabaceae; Papilionoideae; Pisum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                        -!- SIMILARITY: BELONGS TO THE PSAJ FAMILY.
                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                         Pisum sativum (Garden pea).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-TUBER;
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                                                                                                                                                                         13 AA;
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(Rel. 15, Last sequence update)
(Rel. 37, Last annotation update)
I REACTION CENTRE SUBUNIT IX (PSI-J) (FRAGMENT).
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(Rel. 36, Created)
(Rel. 36, Last sequence update)
(Rel. 36, Last annotation updat
                                                                                                                          Conservative
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                                      STANDARD;
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                                                                                                                                                                          1516 MW;
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                                                                                                                                                                                            Photosynthesis; POTENTIAL.
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                                                                                                                          Score 18.5; D
Pred. No. 2.5e
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 19; DB
Pred. No. 4e+0
1; Mismatches
                                                                                                                                                                         9E2E45D11FDE3B41 CRC64;
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4e+03;
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Best Local Similarity
Matches 6; Conserv
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P37030;
01-JUN-1994
01-JUN-1994
01-JUN-1994
                                                                                   EMBL; X13691;
PIR; S04875; S
INTERPRO; IPRO
Nitrogen
NON_TER
SEQUENCE
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                                                                                                                                                                         use by non-profit institutions as long modified and this statement is not removed entities requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                              Submitted (DEC-1988) to -1- FUNCTION: NOT KNOWN -1- COFACTOR: PYRIDOXAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bradyrhizobium japonicum.
Bacteria; Proteobacteria; alpha subdivision; Rhizobiaceae group;
Bradyrhizobium group; Bradyrhizobium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -!- SIMILARITY: BELONGS TO INTERPRO; IPRO01476; -. PFFAM; PF00166; Cpn10; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Two-dimensional gel electrophoresis separation and N-t sequence analysis of proteins from Clostridium pasteuri Electrophoresis 19:802-806(1998).
-I-FUNCTION: BINDS TO CPN60 IN THE PRESENCE OF MG-ATP THE ATPASE ACTIVITY OF THE LATTER (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bacteria;
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                                                                                                                                                                                                                                                             between the Swiss Institute of Bioinf
the European Bioinformatics Institute
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                                                                   PROSITE;
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                                                                 pS00595; AA_TRANSFER_CLASS_5;
                                             fixation;
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  11 AA;
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    1308 MW;
                                             Pyridoxal
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Pred. No. 3
    09F0BB69476DC404 CRC64;
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PYRIDOXAL-PHOSPHATE-DEPENDENT
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01-NOV-1997 (Rel. 35, Last sequence upda
15-DEC-1998 (Rel. 37, Last annotation up
MILTPAIN (EC 3.4.22.-) (FRAGMENT).
Oncorhynchus keta (Chum salmon).
Eukaryota; Metazoa; Chordata; Craniata;
Actinopterygii; Neopterygii; Teleostei;
MAIZEDB;
NON_TER
                                                                                                                                                                                                                                                                                                                                                    žea mays (Maize).
Žea mays (Maize).
Eukaryota; Viridiplantae; F
Eukaryota; Liliopsida;
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Comp. Biochem. Physiol. 117B:445-452(1997).
-!- FUNCTION: CYSTEINE PROTEINASE THAT HYDROLYSES BASI
HYDROLYSE BASIC PROTEINS SUCH AS HISTONE, SALMINE
                                                                                genome analysis program.",
Theor. Appl. Genet. 93:997.1005(1996)
-1- MISCELLANEOUS: ON THE 2D-GEL THE
PROTEIN IS: 5.5, ITS MW IS: 42.7
                                                                                                                                                                  Touzet P., Riccardi F., Morin C., Damerval Pernollet J.-C., Zivy M., de Vienne D.; "The maize two dimensional gel protein data conome analysis program.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-0CT-1996 (Rel. 34, Created)
01-0CT-1996 (Rel. 34, Last sequence update)
15-UUL-1999 (Rel. 38, Last annotation update)
UNKNOWN PROTEIN FROM 2D-PAGE OF ETIOLATED COLEOPTILE
                                                      MAIZE-2DPAGE; P80623; COLEOPTILE
                                                                                                                                                                                                                                                                               TISSUE-COLEOPTILE;
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4; Conserv
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2; Conservative
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15 AA;
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Pred. No. 3.56
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Euteleoste1;
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TISSUE-LARVA;
MEDLINE-98054539; PubMed
Duve H., Johnsen A.H., M
Duve H., East P.D., Thc
Davey M., East P.D., Thc
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P82153;
30-MAY-2000
30-MAY-2000
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SEQUENCE
                                                                                                                                                       SEQUENCE:
STRAIN-NCIB 11946;
MEDLINE-93123995; PubMed-1479361;
MEDLINE-93123995; Vr
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01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
3-DEHYDROQUINATE DEHYDRATASE (EC 4.2.1.10) (3-DEHYDROQUINASE)
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"Purification and characterization of a dual function 3-dehydroquinate dehydratase from Amycolatopsis methanolica. J. Gen. Microbiol. 138:2449-2457(1992).
-i- FUNCTION: CATALYZE A TRANS-DEHYDRATION VIA AN ENOLATE INTERMEDIATE. IS INVOLVED IN BOTH THE CATABOLISM OF QUIN
                                                                                                                                                                                                                                                                                                                    Anycolatopsis methanolica.
Amycolatopsis methanolica.
Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
Bacteria; Firmicutes; Actinobacteria; Pseudonocardiaceae;
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Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Lepidoptera; Glossata; Di
Tortricoidea; Tortricidae; Olethreutinae; Cydia.
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AROQ_AMYME
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MOD_RES 18 18
SEQUENCE 18 AA; 2169 P
                                                                                                                                         Euverink G.J.W., Hessels Dijkhuizen L.;
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Peptides 18:1301-1309(1997)
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2169 MW;
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Pred. No. 3.5e
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Best Local Similarity
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Best Local Similarity 22.3
Matches 2; Conservative
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-!- SIMILARITY: BELONGS TO THE TYPE-II 3-DEHYDROQUINASE FAMILY.
INTERPRO; IPRO01874; -.
PROSITE; PS01029; DEHYDROQUINASE_II; PARTIAL.
Quinate metabolism; Aromatic amino acid biosynthesis; Lyase.
NON_TER 20 20
                                                                                                                                                   PROSITE; PS00086; CYTOCHROME_P450; PARTIAL.

Oxidoreductase; Monooxygenase; Electron transport; Heme.

NON_TER 20 20

SEQUENCE 20 AA; 2428 MW; BCA81586D8DD1496 CRC64:
                                                                                                                                                                                                                                                                                        STRAIN=116;
MEDLINE=93238689; PubMed=8477696;
MEDLINE=93238689; PubMed=8477696;
Eltis L.D., Karlson U., Timmis K.N.;
"Purification and characterization of cytochrome P450RR1 from
"Purification and characterization of cytochrome P450RR1 from
Rhodococcus rhodochrous.";
Eur. J. Biochem. 213:211-216(1993).
Eur. J. Biochem. 213:211-216(1993).
-!- FUNCTION: P450-RRI CATALYZES THE O-DEALKYLATION OF 2-ETHOXYPHENOL
AND 2-METHOXYPHENOL TO PRODUCE CATECHOL. THE CYTOCHROME BINDS
OTHER ORTHO-SUBSTITUTED PHENOLS, INCLUDING 2-ETHOXYPHENOL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CPXX_RHORH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               + +
                                                                                                                                                                                                                         -1- INDUCTION: BY 2-ETHOXYPHENOL.
-1- SIMILARITY: BELONGS TO THE CYTOCHROME P450 FAMILY.
INTERPRO; IPR001128; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rhodococcus rhodochrous
Bacteria; Firmicutes; Ac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-JUL-1993 (Rel. 26, Created)
01-JUL-1993 (Rel. 26, Last sequence update)
15-DEC-1998 (Rel. 37, Last annotation update)
CYTOCHROME P450-RRI (EC 1.14.--) (P450-RRI)
                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
Actinomycetales; Corynebacterineae; Nocardiaceae; Rhodo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7 VFVL 10
||||
3 VFVL 6
7 LDEITMEEL 15
                                11 LEYVTLKKM 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATALYTIC ACTIVITY: 3-DEHYDROQUINATE - 3-DEHYDROSHIKIMATE + H(2)O PATHWAY: THIRD STEP IN THE BIOSYNTHESIS OF CHORISMATE WITHIN THE BIOSYNTHESIS OF AROMATIC AMINO ACIDS (THE SHIKIMATE PATHWAY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    THE BIOSYNTHESIS OF AROMATIC AMINO ACIDS. HAS A TEMPERATURE OPTIMAL OF 76 DEGREES CELSIUS AND PH OPTIMAL OF 9.0. TYPE II
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ENZYMES ARE THERMOSTABLE
                                                                                                                                                                                                                                                                             2-METHYLPHENOL AND 2-CHLOROPHENOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20 AA; 2197 MW; C24AA183E5CFDF0A CRC64;
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100.0%; Pred. No. 4.7e+03;
                                                                                  18.2%;
22.2%;
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6; Mismatches
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Search completed: February Job time: 503 sec

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2: pir2:*
3: pir3:*
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Match
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23.147 Million cell updates/sec
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ALIGNMENTS

A; Note: this form was identified by pI A; Accession: S30371 A; Molecule type: protein A; Residues: 1-24 <AW2> A; Note: this form was identified by pI C; Superfamily: glutathione transferase C; Keywords: transferase R;Codina, R.; Swanson, M.C.; Fernandez-Caldas, E.; Lockey, R.F.; Trudeau, W.L.; submitted to the Protein Sequence Database, October 1995 A;Description: Partial sequence of the Gly m 2 allergen from soybean hull. hull allergen Gly m 2 - soybean (fragment) C;Species: Glycine max (soybean) C;Date: 27-Oct1995 #sequence_revision 27-Oct-1995 #text_change 25-Oct-1996 C;Accession: A57106 밁 Ş R;Awasthi, S.; Singhal, S.S.; Srivastava, S.K.; Awasthi, Y.C. Arch. Biochem. Biophys. 301, 143-150, 1993 A;Title: Purification and characterization of glutathione S-transferase of murine ova A;Reference number: S30369; MUID:93183007 A;Accession: S30373 glutathione transferase (EC 2.5.1.18) mu (isoform pI 8.5) - mouse (fragment) C;Species: Mus musculus (house mouse) C;Date: 08-Dec-1993 #sequence_revision 01-Dec-1995 #text_change 03-May-1996 C;Accession: S30373; S30371 A; Experimental source: seed episperma C; Keywords: seed A;Status: preliminary A;Molecule type: protein A;Residues: 1-20 <COD> A; Reference number: A57106 A; Accession: A57106 A; Molecule type: protein A; Residues: 1-24 <AW1> Query Match Best Local S Matches 5 |: :|||| 15 PIRMLLEY 22 6 PVFVLLEY 13 Similarity 62.1 5; Conservative 28.3%; Score 28; DB 2; Le Pred. No. 2.8e+02; 2; Mismatches 1; 8.5 Length 24; Indels 0 Gaps 0

hemocyanin subuni

Query Match 26.3%; Best Local Similarity 50.0%; Matches 4; Conservative

Score 26; DB 2; Le Pred. No. 5.1e+02; 1; Mismatches 3;

Length 20;

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RESULT
S09517
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(;Species: Mus musculus (house mouse)
C;Date: 25-Oct.1987 #sequence_revision 25-Oct.1987 #text_change 18-Jun-1993
C;Accession: H24735
R;Mannervik, B; Alin, P; Guthenberg, C; Jensson, H; Tahir, M.K.; Warholm, Proc. Natl. Acad. Sci. U.S.A. 82, 7202-7206, 1985
A;Title: Identification of three classes of cytosolic glutathione transferase A; Reference number: A24735; MUID:86042634
A;Accession: H24735
A;Molecule type: protein
A;Residues: 1-23 <MAN>
C;Superfamily: glutathione transferase
                                                            prolamin - sorghum (fragment)
C:Species: Sorghum bicolor (sorghum)
A;Variety: P721 lines
C:Date: 21-Nov-1993 #sequence_revision
C:Accession: S09517
R:Bietz, J.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R;Yue, X.; Favot, P.; Dunn, T.L.; Cassady, A.I.; Hume, D.A. Mol. Cell. Biol. 13, 3191-3201, 1993
A;Title: Expression of mRNA encoding the macrophage colony-stimulating factor receptor A;Reference number: 157530; MUID:93268269
A;Accession: 157530
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C; Keywords:
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Biochem. Genet: 20, 1039-1053, 1982
A;Title: Cereal prolamin evolution and homology revealed by
A;Reference number: S09165; MUID:83153005
A;Accession: S09517
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A; Residues: 1-16 < RES>
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R;Ben-Arie, N.; Khen, M.; Lancet, D.
Biochem. J. 292, 379-384, 1993
A;Title: Glutathione S-transferases in rat ol
A;Reference number: S33237; MUID:93277499
A;Accession: S33237
A;Molecule type: protein
A;Residues: 1-24 GBEN>
A;Note: 18-IIe, 21-Glu, 23-Thr and 23-Glu wer
C;Superfamily: glutathione transferase
C:Keywords: transferase
                                                                                                                                                                                                                                                                                                      R.Levinson, D.A.; Campos-Torres, J.; Leder, P.
J. Exp. Med. 1178, 317-329, 1993
A;Title: Molecular characterization of transgene-induced A;Reference number: PH1580; MUID:93301609
A;Accession: PH1615
A;Molecule type: DNA
A;Residues: 1-14 <LEV>
A;Experimental source: Done marrow pre-B lymphocyte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              glutathione transferase (EC 2.5.1.18) - rat (fragment)
C:Species: Rattus norvegicus (Norway rat)
C:Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 07-May-1999
C:Accession: S33237
glutathione transferase (EC 2.5.1.18) Mu
C:Species: Homo sapiens (man)
C:Date: 03-Aug-1990 #sequence_revision 03
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ig H chain V-D-J region (clone B-less 22) - mouse (fragment) (Species: Mus musculus (house mouse) C;Date: 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_cha C;Accession: PH1615
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A;Molecule type: protein
A;Residues: 1-21 <BIE>
                                                                                                                                                                                                                                                                                           C; Keywords: immunoglobulin
                                                                                                                                                                                                Query Match
Best Local Similarity
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                                        8.3 - human (fragment)
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1.1e+03;
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1.3e+03;
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03-Aug-1990 #text_change 23-Jun-1993

September 1997

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Carboxylic acid reductase - Clostridium formicoaceticum
C:Species: Clostridium formicoaceticum
C:Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 24-Ju
C:Accession: S18400
R:White, H.; Feicht, R.; Huber, C.; Lottspeich, F.; Simon, H.
Biol. Chem. Hoppe-Seyler 372, 999-1005, 1991
A.Title: Purification and some properties of the tungsten-containing
A;Reference number: S18400; MUID:92172285
A;Accession: S18400
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-25 <WHID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               hemocyanin subunit I - Atlantic horseshoe crab (fragment)
C;Species: Limulus polyphemus (Atlantic horseshoe crab)
C;Date: 05-Jun-1987 *sequence_revision 05-Jun-1987 *text_change 12-Apr-1995
C;Accession: A20554
R;Lamy, J.; Lamy, J.; Sizaret, P.Y.; Billiald, P.; Jolles, P.; Jolles, J.; F
Blochemistry 22, 5573-5583, 1983
A;Title: Quaternary structure of Limulus polyphemus hemocyanin.
A;Reference number: A90478
A;Accession: A20554
A;Accession: A20554
A;Accession: A20554
A;Molecule type: protein
A;Residues: 1-24 CIAM>
A;Residues: 1-24 CIAM>
C;Comment: Limulus polyphemus hemocyanin is an association of eight differen
C;Superfamily: hemocyanin
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J. Biol. Chem. 265, 7150-7157, 1990
A;Title: Purification and characterization of glutathione transferases with an A;Reference number: A35187; MUID:90237002
A;Accession: A35187
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-24 <-TSUP
C;Superfamily: glutathione transferase
C;Keywords: transferase
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2; Mismatches
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Pred. No. 2e+03;
3; Mismatches
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Pred. No. 2e+03;
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2e+03;
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contraction-inhibiting peptide II - blue mussel (;Species: Mytilus edulis (blue mussel) (;C;Becies: Mytilus edulis (blue mussel) (;Date: 30-Jun-1989 #sequence_revision 30-Jun-1989 #text_change 08 (;Accession: B27696 R;Hirata, T.; Kubota, I.; Iwasawa, N.; Takabatake, I.; Ikeda, T.; Blochem. Biophys. Res. Commun. 152, 1376-1382, 1988 A;Title: Structures and actions of Mytilus inhibitory peptides. A;Reference number: A90142; MUID:88240357 A;Accession: B27696
                                                                                                                                   R;Dieualde-Noubhani, M.; Novikov, D.; Baumgart, E.; Vanhooren, J.C.T.; Fransen, M.; GEur. J. Blochem. 240, 660-666, 1996
A;Title: Further characterization of the peroxisomal 3-hydroxyacyl-CoA dehydrogenases e acids di- and tri-hydroxycoprostanic acids are metabolized by separate multifunctio A;Reference number: S74113; MUID:97008958
A;Accession: S74114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R;Gomez, F.J.; Gomez, A.M.; Deepe Jr., G.S. Infect. Immun. 60, 2565-2571, 1992
A;Title: An 80-Kilodalton antigen from Histoplasma capsulatum that has homology to he A;Reference number: A43826; MUID:92307875
A;Accession: A43826
                                                                                                                                                                                                                                                                                                                 3-hydroxyacyl-CoA dehydrogenase (EC 1.1.1.35) - rat (fragment)
c;Species: Rattus norvegicus (Norway rat)
C;Date: 13-7an-1995 #sequence_revision 17-Apr-1998 #text_change 17-Mar-1999
C;Accession: S74114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N;Alternate names: 80K heat shock protein 70 homolog c;Species: Ajellomyces capsulata, Histoplasma capsulatum C;Date: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change 17-Mar-1999 C;Date: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change 17-Mar-1999 C;Accession: A43826
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A43826
A; Experimental source: liver C; Superfamily: 3-hydroxyacyl-CoA dehydrogenase C; Superfamily: 3-hydroxyacyl-CoA dehydrogenase C; Keywords: fatty acid beta-oxidation; mitochondrion; NAD; oxidoreductase
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A;Residues: 1-18 <GOM>
A;Experimental source: extract of cell wall and
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A;Residues: 1-6 (HIR>
C;Keywords: amidated carboxyl end
F;6/Modified site: amidated carboxyl end (Val) #status experimental
                                                                                   A; Molecule type: protein A; Residues: 1-19 <DIE>
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Pred. No. 2.2e+03;
2; Mismatches
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C;Species: Rattus
C;Date: 21-Sep-199
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A;Title: Purification of glutaryl-CoA dehydrogenase from Pseudomonas A;Reference number: A48367; MUID:93175988
A;Accession: A48367
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C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 18-Feb-2000
C;Accession: T22228
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                                                                  temperature-labile cholesteryl ester hydrolase - rat (fragment)
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A;Experimental source: strain KB 740
A;Note: sequence extracted from NCBI backbone (NCBIP:125304)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                glutaryl-CoA dehydrogenase (EC 1.3.99.7) - Pseudomonas sp. (fragment)
C;Species: Pseudomonas sp.
C;Date: 01.Dec: 1993 #sequence_revision 29-Sep-1999 #text_change 29-Sep-1999
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submitted to the EMBL Data Library,
A;Reference number: Z19534
A;Accession: T22228
                                                                                                                                        RESULT
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A; Residues: 1-19 <WIL>
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                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 4; Conserv
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Best Local Similarity
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Best Local
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position: X
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   25: Rattus norvegicus (Norway rat)
21-Sep-1993 #sequence_revision 18
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3; Conserv
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26.7%;
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37.5%;
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Pred. No. 2.4e+03;
5; Mismatches 6
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Pred. No. 2.3e+03
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Pred. No. 2.3e+03;
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18-Nov-1994 #text_change 28-Apr-1995
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A; Molecule type: protein A; Residues: 1-23 <OCH> C; Keywords: protein bios:
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JP0058
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R;Carroll Jr., E.J.; Wei, S.H.; Nagel, G.M.
Arch. Biochem. Biophys. 284, 346-351, 1991
A;Title: Purification, physicochemical characterization, and immunohistochemical loca
A;Reference number: S13899; MUID:91112831
A;Accession: S13899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                glycoprotein, 11.7S - frog (Lepidobatrachus laevis)
C;Species: Lepidobatrachus laevis
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 24-Jul-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C;Accession: A46644
R;Wee, S.; Grogan, W.M.
J. Biol. Chem. 268, 8158-8163, 1993
J. Biol. Chem. 268, 8158-8163, 1993
A;Title: Testicular temperature-labile cholesteryl ester hydrolase. Relationship to divalent cations.
                                                                                                                                                                                                                                                                                                                     ribosomal protein L30 - Bacillus cycloheptanicus (fragment)
C;Species: Bacillus cycloheptanicus
C;Date: 10-Mar-1994 #sequence_revision 28-Oct-1994 #text_ch
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A;Residues: 1-20 <WEE>
A;Resperimental source: testis
A;Experimental source of the model backbone (NCBIP:129155)
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A; Accession: A46644
                                                                                                                                                                                               submitted to JIPID, February 1994
A;Description: Phylogenetic diversity in the genus Bacillus and comparative ribosomal
A;Reference number: JP0042
A;Accession: JP0058
                                                                                                                                                                                                                                                                                C;Accession: JP0058 R;Ochi, K.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Status: preliminary
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                                     Query Match
Best Local Similarity
Matches 4; Conserv
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Matches
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Best Local :
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14 VTLKK 18
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4; Conserv
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                                         Score 22; DB 2;
Pred. No. 2.8e+03
1; Mismatches
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Pred. No. 2.7e+03;
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Pred. No. 2.4e+03;
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6 ITLKK 10

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C;Species: Escherichia coli
C;Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 31-Dec-1993
C;Accession: A60986
R;Broom, M.F.; Mellor, D.M.; Chadwick, V.S.
Experientia 45, 1097-1099, 1989
A;Title: Purification and amino acid sequencing of naturally occurring N-formyl-methion;
A;Reference number: A60986; MUID:90092408
A;Accession: A60986
A;Accession: A60986
A;Molecule type: protein
A;Residues: 1-6 GRRO>
C;Comment: This hexapeptide was the longest of several N-formyl oligopeptides reported.
F;1/Modified site: N-formylmethionine #status experimental
                                                                                                      R;Kirch, H.H.; Uhrig, H.; Lottspeich, F.; Salamini, F.; Thompson, R.D.
Theor. Appl. Genet. 78, 581-588, 1989
A;Title: Characterization of proteins associated with self-incompatibi
A;Reference number: PQ0749
A;Accession: PQ0750
A;Molecule type: protein
A;Molecule type: protein
A;Experimental source: style
C;Keywords: glycoprotein
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J. Blochem. 115, 568-577, 1994
A:Title: Construction of aminotransferase chimeras and analysis of their substrate special A:Reference number: JX0315; MUID:94334304
A;Reference number: JX0315; MUID:94334304
A;Accession: JX0315
A;Molecule type: DNA
A;Residues: 1-12 <MIY>
C;Comment: This enzyme is a chimeric enzyme of Escherichia coli aspartate aminotransferae
C;Comment: The parental enzymes catalyze the reversible amino group transfer reaction be C;Keywords: aminotransferase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          aminotransferase chimera DY18 - synthetic (fragment)
C;Species: synthetic
C;Date: 28-May-1999 #sequence_revision 28-May-1999 #text_change 28-May-1999
C;Accession: JX0315
                                                                                                                                                                                                                                                                                                                         self-incompatibility protein S3 - potato (fragment)
C;Species: Solanum tuberosum (potato)
C;Date: 19-May-1994 #sequence_revision 19-May-1994 #text_change 23-Mar-1995
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JX0315
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Best Local S
Matches 3
  Query Match
Best Local s
Matches 5
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3; Conserv
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  h 21.2%;
Similarity 62.5%;
5; Conservative
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                                                                                                                                                                                                                                         of proteins associated with self-incompatibility
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Pred. No. 2.1e
2; Mismatches
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Score 21; DB 2; 1
Pred. No. 2.7e+03;
1; Mismatches 2;
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Pred. No. 2e+05;
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2.1e+03;
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                                      Length 15;
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                  GMP reductase / glucose-6-phosphate 1-dehydrogenase fusion protein - human (fragment) C;Species: Homo sapiens (man) C;Date: 10-Sep-1998 *sequence_revision 10-Sep-1998 *text_change 10-Sep-1998 C;Accession: A32902 R;Kanno, H.; Huang, I.Y.; Kan, Y.W.; Yoshida, A. Cell 58, 595-606, 1989 A;Title: Two structural genes on different chromosomes are required for encoding the A;Reference number: A32902; MUID:89336791 A;Accession: A32902
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type: protein
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A; Molecule type: protein
A; Residues: 1-21 <HAR>
A; Cross-references: PIDN:AAB25431.1; PID:g265707
A; Experimental source: strain K 172
A; Note: sequence extracted from NCBI backbone (NCBIP:125302)
C; Keywords: oxidoreductase
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A;Experimental source: cv. Russet Burbank
C;Reywords: proteinase inhibitor
                                                                                                                                                                                                                                                   submitted to the EMBL Data Library, June 1992 A; Reference number: S24965 A; Accession: T07683
                                                                                                                                                                                                                                                                                                                     proteinase inhibitor I homolog - potato (fragment)
C;Species: Solanum tuberosum (potato)
C;Date: 11-Jun-1999 #sequence_revision 11-Jun-1999 #text_change 11-Jun-1999
C;Accession: T07683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     glutaryl-CoA dehydrogenase (EC 1.3.99.7) - Pseudomonas sp. (fragment) C; Species: Pseudomonas sp.
                                                                                                                                                                                                 A; Molecule type: DNA
A; Residues: 1-21 <LEE>
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10 VFFLLKKYSFK 20
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Carboxylesterase (EC 3.1.1.1) RL1, microsomal - rat (fragment)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 30-Sep-1991 **sequence_revision 30-Sep-1991 **text_change 21-Aug-1998
C;Accession: S09021
R;Hosokawa, M.; Maki, T.; Satch, T.
Arch. Biochem. Biophys. 277, 219-227, 1990
A;Title: Characterization of molecular species of liver microsomal carboxylesterases of A;Reference number: S09021; MUID:90179180
A;Accession: S09021
A;Molecula type: protein
A;Residues: 1-22 GHOS>
C;Superfamily: cholinesterase; cholinesterase homology
C;Keywords: carboxylic ester hydrolase
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S09021
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R;Yoshida, A.; Kan, Y.W.

Cell 62, 11-12, 1990

A;Title: Origin of "fused" glucose-6-phosphate dehydrogenase.
A;Reference number: A55177

A;Contents: annotation
C;Comment: This peptide was sequenced from a fragment of a chimeric protein produced frow was later shown to be an artifact of purification and not a natural component of erythm C;Keywords: fusion protein
F;1-13/Region: GMP reductase
F;14-21/Region: glucose-6-phosphate 1-dehydrogenase
Search completed: February 5, 2001, 10:49:32 Job time: 745 sec
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Best Local Similarity 44.4%;
Matches 4; Conservative
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15 VLGKYVSL 22
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Maximum DB seg length: 25
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Maximum Match
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               Human 65 kD glutamic aci Human 65 kD glutamic acid deca GAD65 fragment, pe Peptide derived fr 65 kD glutamic acid GAD65 residues 213 GAD65 residues 201 Peptide derived fr 65 kD Glutamic acid glutamic acid deca
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GAD65 fragment,
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ALIGNMENTS

WILE OF THE PROPERTY OF THE PR GAD; 65 kD; human; glutamic acid decarboxylase; autoreactive; diagnosis; insulin-dependent diabetes mellitus; IDDM; cell-mediated disease; predisposition; autoimmune; tumour; rheumatoid arthritis; W18847; W18847 standard; peptide; 20 Synthetic. multiple sclerosis. 65 kD Glutamic acid decarboxylase peptide fragment VI. (BOEF) BOEHRINGER MANNHEIM GMBH. 20-JUL-1995; 20-JUL-1995; 23-JAN-1997. DE19526561-A1. 05-JAN-1998 (first entry) 95DE-1026561 95DE-1026561. B

Skin test for diagnosis of cell-mediated diseases, esp. diabetes involving intradermal admin. of auto:reactive substances

WPI; 1997-088254/09.

Donie F, Endl J, Pozzilli P, Stahl

Ganz M, Jung G, P;

Kientsch-engel R;

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Query Match
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The present peptide is a framgent of the human 65 kD glutamine decarboxylase (GAD), which can be used to diagnose, or diagnose a predisposition to, a tumour or immunological disease, preferably are autoimmune disease, especially diabetes. It can also be used as a reagent to determine specific T cell subpopulations, in medicaments to treat or prevent immunological diseases, preferably autoimmune diseases, especially diabetes, to produce antigens, especially immunogens or tolerogens and to isolate specific T cell subpopulations, which can be used to produce antigens or for reinjection, optionally after inactivation.
                                                                                                                                                                                                                                                                                      Albert W,
Stahl P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W18842-70 are peptide fragments of the 65 kD human glutamic acid decarboxylase (GAD). The fragments are autoreactive substances used for diagnosis of insulin-dependent diabetes mellitus (IDDM). The diagnosis is determined by using a claimed method for diagnosis of cell-mediated diseases or a predisposition to cell-mediated diseases, which is effected by administering an autoreactive substance intradermally and establishing the diagnosis on the basis of the occurrence or lack of a positive reaction at the site of administration. The method is used for diagnosis of autoimmune and tumour diseases, preferably T-cell-mediated diseases.
                                                                                                                                                                            Claim
                                                                                                                                                                                                                        Glutamine decarboxylase peptide(s) -
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thes 0;
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                                                                                                                                                                                                                      diagnosis and therapy
                                                                                                                                                                                                                                                                                                    Schendel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sis; predisposition;
diabetes; reagent;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and especially IDDM.
                                                                                                                                                                                                                                                                                                    D,
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                                                                               in medicaments
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RESULT
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                                                                                     Query Match
Best Local S
Matches 16
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Best Local S
Matches 20
                                                                                                                                                       Q86481 and Q86482 encode R71733 and R79105, rat and human glutamic acid decarboxylase (GAD65) respectively, from which the GAD65 fragments described in R72261-R72298 ere ferm which These fragments can be used to detect autoantibodies against GAD, e.g. to diagnose and treat GAD-related autoimmune disorders, such as insulin dependant diabetes mellitus or stiff man disease.
                                                                                                                                                                                                                                            New polypeptide fragments of glutamic acid decarboxylase - for diagnosis and treatment of auto:immune disease, esp. insulin dependent diabetes, also related nucleic acid, vectors, antibodies, hybridoma(s) etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
Y59574 standard; peptide; 20
                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                               Clare-Salzler MJ,
                                                                                                                                                                                                                                                                                                                                                                        24-AUG-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Glutamic acid decarboxylase; GAD65; auotimmune insulin-dependant diabetes mellitus; stiff man
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Glutamic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13-NOV-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R72274 standard;
                                                                                                                                                                                                                                                                                                                                  (REGC ) UNIV CALIFORNIA.
                                                                                                                                                                                                                                                                                                                                                      17-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                          23-MAR-1995
                                                                                               Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              acid
                                                                                                                                     20 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20
                                                                                                                                                                                                                           Page 76; 100pp; English
                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              decarboxylase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AA;
                                                                                                                                                                                                                                                                                                                                                      930S-0123859
                                                                                                                                                                                                                                                                                                                                                                        94WO-US09478.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Peptide;
                                                                                                                                                                                                                                                                                                                Erlander MG,
                                                                                               79.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
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                                                                                               Score 79;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GAD65) fragment.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 99;
                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                 Kaufman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 18;
                                                                                               DB 16;
7.1e-08;
                                                                                                                                                                                                                                                                                                                DĽ,
                                                                                       0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    disorders; disease.
                                                                                                        Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 20;
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                                                                                       Gaps
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Y59574;

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RESULT
R76651
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Best Local Similarity
"---hes 16; Conserv
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                                                                                                                                                                                                                                                                                                                                                              This sequence represents a fragment of the glutamic acid decarboxylase 6 (GAD65) protein. The invention relates to a method of ameliorating GAD associated autoimmune disorders by administering a GAD65 peptide to the patient. The method can be used for ameliorating GAD associated autoimmune disorders such as IDDM (insulin dependent diabetes mellitus) and Stiff man disease. GAD65 can also be useful for screening drugs that alter GAD function, for generating monoclonal antibodies and in immunoassays. GAD65 is an effective diagnostic tool for predicting IDDM and the diagnosis is quite easy. It is also possible to obtain much larger quantities of polypeptide via recombinant techniques than are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-JUN-1995;
21-SEP-1990;
18-JUN-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ameliorating glutamic acid decarboxylase associated autoimmune disorders such as insulin dependent diabetes mellitus and Stif
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAD65; glutamic acid decarboxylase 65; autoimmune disorder; IDDM; insulin dependent diabetes mellitus; Stiff man disease; diagnosis therapy.
DE4418091-A1
                                              diagnosis; autoimmune
                                                           diabetes; T-cell subpopulation;
                                                                                   Peptide derived
                                                                                                         05-MAR-1996 (first entry)
                                                                                                                                                          R76651 standard;
                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                        available from natural sources
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 11; Column 42; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2000-095930/08.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tobin AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (REGC ) UNIV CALIFORNIA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAD65 fragment,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               03-APR-2000 (first entry)
                       Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kaufman DL,
                                                                                                                                                                                                                                                                                                                                 20
                                                                                                                                                                                                                                                                   Conservative
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90US-0586536.
91US-0716909.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      peptide #14.
                                                                                from human glutamic acid decarboxylase 10.
                                                                                                                                                       peptide;
                                                                                                                                                                                                                                                                               79.8%;
                                               disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Erlander MG;
                                                                                                                                                          14
                                                                                                                                                                                                                                                                  score 79; DB
pred. No. 7.1
pred. No. 7.1
                                                                                                                                                          A
                                                         detection; antigen production;
                                                                                                                                                                                                                                                                             DB 21;
7.1e-08;
                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                                         Length 20;
                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and Stiff man
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 diagnosis;
                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                   Gaps
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                    W18859;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     autoimmune diseases, including specific T-cell subpopulations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-FEB-1994;
20-JAN-1994;
          Donie F, E
Pozzilli P,
                                                                                                                  23-JAN-1997.
                                                                                                                                            DE19526561-A1
                                                                                                                                                                   Synthetic
                                                                                                                                                                                         predisposition; autoimmune; multiple sclerosis.
                                                                                                                                                                                                                  GAD; 65 kD; human; glutamic acid decarboxylase; autoreactive; diagnosis;
insulin-dependent diabetes mellitus; IDDM; cell-mediated disease;
                                                                                                                                                                                                                                                    65 kD Glutamic acid decarboxylase peptide fragment 10
                                                                                                                                                                                                                                                                              05-JAN-1998
                                                                                                                                                                                                                                                                                                                           W18859 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         e.g. by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       diagnosed Type-I diabetics. Pharmaceutical compsns. contg. these peptides and those shown in R77571-72, are useful for the diagnosis of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R76642-62 are derived from human glutamic acid decarboxylase and specifically react with T-cell sub-populations isolated from recently
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Fig 2; 21pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Antigen-specific activated T-lymphocytes and their detection interaction with inventive peptide(s) of peptide-MHC complexes; useful in diagnosis of e.g. diabetes and auto:immune diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1995-264505/35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Albert W, Dornmair K, Stahl P, Schendel D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       27-JUL-1995.
                                            (BOEF ) BOEHRINGER MANNHEIM GMBH
                                                                    20-JUL-1995;
                                                                                            20-JUL-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (ENDL/) ENDL J.
(BOEF ) BOEHRINGER MANNHEIM GMBH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   disease or predispositions of immune system diseases, tumours, and stoimmune diseases, including diabetes. The peptides are able to detect secific T-cell subpopulations that are then used for antigen prodn.,
                                                                                                                                                                                                                                                                                                                                                                                      σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         reinjection
                    Endl J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
          Stahl
                                                                                                                                                                                                                                                                              (first
                                                                    95DE-1026561
                                                                                           95DE-1026561
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94DE-4401629
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          Ganz M,
                                                                                                                                                                                                                                                                            entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                  66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Endl J,
                                                                                                                                                                                                                                                                                                                             14
                    Jung
                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 66;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                      ore 66; DB 16;
Pred. No. 1e-05;
Mismatches 0
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                                                                                                                                                                                                      rheumatoid arthritis;
                     Kientsch-engel
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RESULT
W12408
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                                   New human glutamic acid decarboxylase peptide(s) - utreatment, diagnosis and determining predisposition for ameliorating auto-immune responses.
                                                                                                                                                                                                                                                                                                                                                                                           T cell; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                         65 kD glutamic acid decarboxylase; human; GAD65; neuron; central nervous system; type I dlabetes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAD65 residues 213-227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-OCT-1997 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       W12408;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W12408 standard; peptide; 15 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1997-088254/09
                                                                                        WPI; 1997-087322/08
                                                                                                                                                                                                                        24-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                       Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 involving
                                                                                                                                                                                                                                                                             WO9700891-A1
                                                                                                                                                                                                                                                                                                                                Misc-difference
                                                                                                                                          (KENN-) KENNEDY INST RHEUMATOLOGY (NEUR-) NEUROCRINE BIOSCIENCES IN (SBAR-) ST BARTHOLOMEW'S HOSPITAL
                                                                                                                                                                                                23-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
mes 13; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 TYEIAPVFVLLEY 13
                                                                                                                                                                                                                                                                                                                                                                     sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ₽J,
                                                                                                                                           NEUROCRINE BIOSCIENCES INC. ST BARTHOLOMEW'S HOSPITAL CENT CLINICAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fig 2; 12pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  for diagnosis of cell-mediated diseases, esp. diabetes intradermal admin. of auto:reactive substances
                                                                                                               Gaur A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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                                                                                                                                                                                              95US-0494624
                                                                                                                                                                                                                          96WO-US10790
                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
1..15
                                                                                                                                                                                                                                                                                                      /note= "optionally substituted, providing at least
    residues remain wild type"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               66.7%;
                                                                                                                 Leslie RDG, Ling N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 66;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 18;
1e-05;
                                                                                                                  Londei M;
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                                              ) - used for
ion to diabe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 14;
                                                                                                                                                                                                                                                                                                                                                                                                            enzyme; pancreas;
autoimmune response;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                 diabetes and
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Claim 26;

Page

28pp; English

W12403-W12413 represent fragments and analogues of the the 65 kD isoform of human glutamic acid decarboxylase (GAD65) (see W12402 for full length wild type protein). GAD is an enzyme expressed in the beta cells of the

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RESULT
W12407
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                                                                                                                                                                                                                                                                                CC w12403-w12413 represent fragments and analogues of the the 65 kD isoform co of human glutamic acid decarboxylase (GAD65) (see w12402 for full length CC wild type protein). GAD is an enzyme expressed in the beta cells of the cancreas, and in neurons of the central nervous system. There are two compared to the central nervous system. There are two constraints of GAD, a 67 kD isoform, and GAD65. Immunodominant regions of CC GAD65 have been identified in Type I diabetic patients. These GAD65 comethods are for detecting or treating diabetics or a predisposition to constant and analogues, are used in the methods of the invention. The contract of the constant of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 65 kD glutamic acid decarboxylase; human; GAD65; enzyme; pancreas; neuron; central nervous system; type I diabetes; autoimmune response;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAD65 residues 201-215.
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    Claim 25; Page -;
                                                                              New human glutamic acid decarboxylase peptide(s) - used for treatment, diagnosis and determining predisposition to diabetes for ameliorating auto-immune responses.
                                                                                                                                                                                                                                           WPI; 1997-087322/08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-JUN-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                (KENN-) KENNEDY INST RHEUMATOLOGY.
(NEUR-) NEUROCRINE BIOSCIENCES INC.
(SBAR-) ST BARTHOLOMEW'S HOSPITAL CENT CLINICAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cell; therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ب
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13; Conser
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                                                                                                                                                                                                                                                                                                                      Gaur A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note= "optionally substituted, providing at least
    residues remain wild type"
28pp; English.
                                                                                                                                                                                                                                                                                                                          Leslie RDG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
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                                                                                                                                                                                                                                                                                                                              Londei M;
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Best Local
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                                      a disease or predispositions of immune system diseases, tumours, and autoimmune diseases, including diabetes. The peptides are able to detect specific T-cell subpopulations that are then used for antigen prodn.,
                                                                                  R76642-62 are derived from human glutamic acid decarboxylase and specifically react with T-cell sub-populations isolated from recently diagnosed Type-I diabetics. Pharmaceutical compsns. contg. these peptides and those shown in R77571-72, are useful for the diagnosis of
                                                                                                                                                               Claim 1; Fig 2; 21pp;
                                                                                                                                                                                       Antigen-specific activated T-lymphocytes and their detection interaction with inventive peptide(s) of peptide-MHC complexes; useful in diagnosis of e.g. diabetes and auto:immune diseases
                                                                                                                                                                                                                                                                                                                                                                             04-FEB-1994;
20-JAN-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    pancreas, and in neurons of the central nervous system. There are two isoforms of GAD, a 67 kD isoform, and GADS. Immunodominant regions of GAD65 have been identified in Type I diabetic patients. These GAD65 fragments, and analogues, are used in the methods of the invention. The methods are for detecting or treating diabetes or a predisposition to diabetes. The peptides can also be used for ameliorating an autoimmune response in a patient. Alteration of the native peptides with selective
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DE4418091-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               diagnosis; autoimmune
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                                                                                                                                                                                                                                                                                                     Albert W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             diabetes; T-cell subpopulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Peptide derived
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10; Conserv
                          reinjection
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                                                                                                                                                                                                                                                                                      Schendel D;
                                                                                                                                                                                                                                                                                                   Dornmair K,
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94DE-4401629
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          from human glutamic acid decarboxylase 11.
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                                                                                                                                                                 German.
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Pred. No.
                                                                                                                                                                                                                                                                                                 Jung G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             detection; antigen production;
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RESULT R72275 ID R7

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R72275 standard; Peptide;

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                                                                                                                  W18842-70 are peptide fragments of the 65 kD human glutamic acid decarboxylase (GAD). The fragments are autoreactive substances used for diagnosis of insulin-dependent diabetes mellitus (IDDM). The diagnosis is determined by using a claimed method for diagnosis of cell-mediated diseases or a predisposition to cell-mediated diseases, which is effected by administering an autoreactive substance intradermally and establishing the diagnosis on the basis of the occurrence or lack of a positive reaction at the site of administration. The method is used for diagnosis of autoimmune and tumour diseases, preferably T-cell-mediated diseases such as rheumatoid arthritis, multiple sclerosis and especially IDDM.
                                                                                             Sequence
                                                                                                                                                                                                                                                       Claim 11; Fig 2; 12pp;
                                                                                                                                                                                                                                                                                             Skin test
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAD; 65 kD; human; glutamic acid decarboxylase; autoreactive; diagnosis; insulin-dependent diabetes mellitus; IDDM; cell-mediated disease; predisposition; autoimmune; tumour; rheumatoid arthritis;
                                                                                                                                                                                                                                                                                                                     WPI; 1997-088254/09
                                                                                                                                                                                                                                                                                                                                            Donie F, En Pozzilli P,
                                                                                                                                                                                                                                                                                                                                                                                                        20-JUL-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               multiple sclerosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        65 kD Glutamic acid decarboxylase peptide fragment
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                                                                                                                                                                                                                                                                                                                                                                                 (BOEF ) BOEHRINGER MANNHEIM GMBH.
.11 LEYVTLKKMR
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P, Stahl
                                                                                                                                                                                                                                                                                 for diagnosis of cell-mediated diseases, esp. diabetes intradermal admin. of auto:reactive substances
                                                                                              14 AA;
                                 Conservative
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                                                                                                                                                                                                                                                                                                                                             Ganz M,
                                              49.5%;
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                                                                                                                                                                                                                                                                                                                                                        Jung G,
                                              Score 49;
Pred. No.
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Pred. No.
                                  Mismatches
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Matches 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Glutamic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q86481 and Q86482 encode R71733 and R79105, rat and human glutamic acid decarboxylase (GAD65) respectively, from which the GAD65 fragments described in R72261-R72298 were derived. These fragments
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Clare-Salzler MJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-SEP-1993;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              can be used to detect autoantibodies against GAD, e.g. to diagnose and treat GAD-related autoimmune disorders, such as insulin dependant diabetes mellitus or stiff man disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New polypeptide fragments of glutamic acid decarboxylase - for diagnosis and treatment of auto:immune disease, esp. insulin dependent diabetes, also related nucleic acid, vectors,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24-AUG-1994;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        insulin-dependant diabetes mellitus;
                                  07-DEC-1999.
                                                                       US5998366-A.
                                                                                                                                                               GAD65; glutamic acid decarboxylase 65; autoimmune disorder; IDDM; insulin dependent diabetes mellitus; Stiff man disease; diagnosis
                                                                                                                                                                                                                     GAD65 fragment, peptide #15.
                                                                                                                                                                                                                                                          03-APR-2000
                                                                                                                                                                                                                                                                                                Y59575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
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09-APR-1997;
                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                   Y59575 standard; peptide; 20 AA.
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les 9; Conser
                                                                                                                                                                                                                                                                                                                                                                        12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                12 EYVTLKKMR 20
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97US-0827618.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    45.5%; Score 45;
100.0%; Pred. No.
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0.094;
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                                                                                                                                                                 diagnosis;
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RESULT
R76659
ID R76
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Best Local S
Matches 9
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21-SEP-1990;
18-JUN-1991;
                                                                                                                                                                                                                                                                             This sequence represents a fragment of the glutamic acid decarboxylase 69 (GAD65) protein. The invention relates to a method of ameliorating GAD associated autoimmune disorders by administrating GAD associated autoimmune disorders be used for ameliorating GAD associated autoimmune disorders such as IDDM (insulin dependent diabetes mellitus) and Stiff man disease. GAD65 can also be useful for screening drugs that alter GAD function, for generating monoclonal antibodies and in immunoassays. GAD65 is an effective diagnostic tool for predicting IDDM and the diagnosis is quite easy. It is also possible to obtain much larger quantities of polypeptide via recombinant techniques than are
R76659
                            R76659 standard; peptide;
                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 11; Column 42; 61pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ameliorating glutamic acid decarboxylase associated autoimmune disorders such as insulin dependent diabetes mellitus and Stiff man
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tobin AJ, Kaufman DL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (REGC ) UNIV CALIFORNIA.
                                                        13
                                                                                                                                  12 EYVTLKKMR 20
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                                                                                                   |||||||||
|eyvtlkkmr 9
                                                                                                                                                               Similarity 100.
9; Conservative
                                                                                                                                                                                                                                         20 AA;
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90US-0586536.
91US-0716909.
                                                                                                                                                                            45.5%;
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                            14 AA.
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                                                                                                                                                                               Score 45;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     English.
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0.094;
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PA
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Albert W,
Stahl P,
                                                                         04-FEB-1994;
20-JAN-1994;
                                                                                                                                                              DE4418091-A1
                                                                                                                                                                                                             diagnosis;
                                                                                                                                                                                                                                                 Peptide derived from human glutamic acid decarboxylase 18.
                                                                                                                                                                                                                                                                           05-MAR-1996 (first entry)
                                                                                                              24-MAY-1994;
                                                                                                                                      27-JUL-1995
                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                           diabetes; T-cell subpopulation;
                                     BOEF ) BOEHRINGER MANNHEIM GMBH.
Dornmair K, Schendel D;
                                                                                                                                                                                                              autoimmune disease.
                                                                         94DE-4403522
94DE-4401629
                                                                                                              94DE-4418091
            Endl J,
            Jung
                                                                                                                                                                                                                           detection; antigen production;
            Ö
              Meinl
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WPI; 1995-264505/35

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RESULT
W18867
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Best Local
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      W18842-70 are peptide fragments of the 65 kD human glutamic acid decarboxylase (GAD). The fragments are autoreactive substances used for disquosis of insulin-dependent diabetes mellitus (IDDM). The diagnosis is determined by using a claimed method for diagnosis of cell-mediated diseases or a predisposition to cell-mediated diseases, which is effected by administrating an autoreactive substance intradermally and establishing the diagnosis on the basis of the occurrence or lack of a positive reaction at the site of administration. The method is used for diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            specifically react with T-cell sub-populations isolated from recently diagnosed Type-I diabetics. Pharmaceutical compsns. conty. these peptides and those shown in R77571-72, are useful for the diagnosis of a disease or predispositions of immune system diseases, tunours, and autoimmune diseases, including diabetes. The peptides are able to detect specific T-cell subpopulations that are then used for antigen prodn.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Antigen-specific activated interaction with inventive puseful in diagnosis of e.g.
                                                                                                                      Claim 11; Fig
                                                                                                                                                                                 WPI; 1997-088254/09
                                                                                                                                                                                                                                                                                                                                             DE19526561-A1
                                                                                                                                                                                                                                                                                                                                                                                             multiple
                                                                                                                                                                                                                                                                                                                                                                                                         predisposition;
                                                                                                                                                                                                                                                                                                                                                                                                                                   GAD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           65 kD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-JAN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 W18867 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R76642-62 are derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1;
                                                                                                                                                                                                                                             (BOEF ) BOEHRINGER MANNHEIM GMBH.
                                                                                                                                                                                                                                                                      20-JUL-1995;
                                                                                                                                                                                                                                                                                                                    23-JAN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                       insulin-dependent
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    reinjection.
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                                                                                                                                                                                                         Endl J,
P, Stahl
                                                                                                                                                                                                                                                                                                                                                                                              sclerosis.
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                                                                                                                                             for diagnosis intradermal ad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14
                                                                                                                                                                                                                                                                                                                                                                                                               human; glutamic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14
                                                                                                                      <u>,,</u>
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                                                                                                                                                                                                                                                                      95DE-1026561
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                                                                                                                                                                                                                                                                                                                                                                                                          autoimmune;
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                                                                                                                    12pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 peptide;
                                                                                                                                                                                                         Ganz
P;
                                                                                                                                                                                                                                                                                                                                                                                                                   glutamic acid decarboxylase; autoreactive; diagnosis;
diabetes mellitus; IDDM; cell-mediated disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                         decarboxylase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          from human glutamic acid decarboxylase and the T-cell sub-populations isolated from recently
                                                                                                                                              admin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 German.
                                                                                                                      German.
                                                                                                                                             of cell-mediated diseases, esp. dmin. of auto:reactive substance
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e peptide(s) of
g. diabetes and
                                                                                                                                                                                                                   Jung
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 36;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ₿
                                                                                                                                             auto:reactive substances
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         peptide fragment
                                                                                                                                                                                                                                                                                                                                                                                                          rheumatoid
                                                                                                                                                                                                                    Kientsch-engel
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2.6;
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auto:immune diseases
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                                                                                                                                                          diabetes
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Best Loc
Matches
The patent discloses six new cyclic peptides which have been isolated from the Western Pacific Ocean sponge Phakellia costata. They are: cyclo-(Pro-Thr-Pro-Phe-Ile-Phe-Ser) (designated phakellistatin 4), cyclo-(Pro-Phe-Sar-Ala-Wet-Ala-Ile) (designated phakellistatin 5), cyclo-(Pro-Trp-Leu-Pro-Ile-Pro-Phe) (designated phakellistatin 6), cyclo-(Pro-Pro-Ile-Phe-Ala-Leu-Pro-Pro-Tyr-Ile) (designated phakellistatin 8), cyclo-(Pro-Pro-Ile-Phe-Val-Leu-Pro-Pro-Tyr-Ile) (designated phakellistatin 8) and cyclo-(Pro-Pro-Ile-Phe-Val-Leu-Pro-Pro-Tyr-Val) (designated phakellistatin 8) and cyclo-(Pro-Pro-Ile-Phe-Val-Leu-Pro-Pro-Tyr-Val) (designated phakellistatin 9). The cyclic peptides all demonstrate in vitro p388 ED50 values of between 0.18 and 4.1 mcg/ml. They also demonstrate in vitro growth inhibitory accivity against human cancer cell lines. They may thus be used in treatment of cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 such
                                                                                                                                                                                                                             WPI;
                                                                                                                                                        Claim 7;
                                                                                                                                                                                         New cyclic peptide(s) designated phakellistatin and -9 - are isolated from the sponge Phakellia
                                                                                                                                                                                                                                                   Pettit GR,
                                                                                                                                                                                                                                                                                                 14-NOV-1994;
                                                                                                                                                                                                                                                                                                                       14-NOV-1994;
                                                                                                                                                                                                                                                                                                                                               08-JUL-1997.
                                                                                                                                                                                                                                                                                                                                                                     US5646246-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Phakellia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cyclic; dec
anticancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Phakellistatin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 W14898;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      W14898 standard; peptide; 10
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                                                                                                                                                                                                                                                                          (UYAR-)
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                                                                                                                                                                               treatment of cancer
                                                                                                                                                                                                                                                                           VIND
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7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         decapeptide;
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                                                                                                                                                                                                                                                                           ARIZONA
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                                                                                                                                                                                                                                                                                                                       9405-0338383
                                                                                                                                                        55;
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/note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 arthritis, multiple sclerosis and especially IDDM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          36.4%; Fr
100.0%; Pr
0;
                                                                                                                                                       29pp;
                                                                                                                                                                                                                                                                           STATE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         phakellistatin; sponge; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    "the imino group of this residue forms a peptide bond with the carboxy group of Val(10), i.e. the residue is a component of a cyclic peptide and is not an N-terminal"
                                                                                                                                                                                                                                                                                                                                                                                                                   "the carboxy group of this residue forms a peptide bond with the imino group of Pro(
                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                       English.
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                           the residue is
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No.
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2.
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may
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                                                                                                                                                                                                                                                                                                                                                                                                                    Pro(1),
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RESULT
P30121
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P30120
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Best Local S
Matches 6
                                                                             Query Match 31.
Best Local Similarity 43.
Matches 7; Conservative
                                                                                                                                                                                                                            Antigenic useful in
                                                                                                                                                                                                                                                                                                                                 14-APR-1982;
20-SEP-1984;
18-DEC-1984;
                                                                                                                                                    The peptides of the invention corresp. to a region on the antigenic picornavirus capsid protein. The capsid protein FMDV VPI or Polio virus VPI. When linked to carriers the peptides are immunogenic. Dose is 20 ug-2 mg peptide for innoculations.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence is that of phakellistatin 9 which demonstrates in vitro ED50 value against P388 cells of 4.1\ \mathrm{mcg/ml}.
                                                                                                                                                                                                                                                                              Bittle JL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Antigen; Picornavirus; capsid protein; antibody; diagnosis.
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                                                                                                                                 Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                              Polio virus types 1 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence of peptide PP2c which corresp. to AAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               03-APR-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       P30120 standard;
                                                                                                                                                                                                        Example; Page 53; 90pp; English.
                                                                                                                                                                                                                                                           WPI; 1983-807942/44.
                                                                                                                                                                                                                                                                                                                                                                                   14-APR-1983;
                                                                                                                                                                                                                                                                                                                                                                                                       27-OCT-1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein.
                                                                                                                                                                                                                                                                                                   (BITT/) BITTLE J L.
(SCRI-) SCRIPPS CLINIC
                                                                                                                                                                                                                                                                                                                                                               25-MAR-1983;
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2 pifvlppyv 10
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                                                          1 TYEIAPVFVLLEYVTL 16
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6; Conservative
                                                                                                                                                                                                                           peptide(s) corresp. to picornavirus capsid protein
prodn. of vaccines and in diagnostic tests
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                                                                                                                                 20 AA;
                                                                                                                                                                                                                                                                              Lerner RA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first
                                                                                                                                                                                                                                                                                                                                83US-0478847.
82US-0368308.
84US-0653475.
84US-0682819.
                                                                                                                                                                                                                                                                                                                                                                                   83WO-0002644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      peptide;
                                                                                        31.3%;
43.8%;
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Pred. No.
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Pred. No.
                                                                                Mismatches
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                                                                                                   DB 4;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              detection; vaccine,
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Query Match
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Matches 7; Conserv
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20-SEP-1984;
18-DEC-1984;
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protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The peptides of the invention corresp. to a region on the antigenic picornavirus capsid protein. The capid protein FMDV VPI or Polio virus VPI. When linked to carriers the peptides are immunogenic. Dose is 20 ug-2 mg peptide for innoculations.
W08303547-A
                                                                                                                  Sequence
                                                                                                                                                   03-APR-1992
                                                                                                                                                                                    P30321;
                                                                                                                                                                                                                  P30321 standard; peptide; 20 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Antigenic peptide(s) corresp. to picornavirus capsid protein useful in prodn. of vaccines and in diagnostic tests
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                               Polio virus
                                                                              Antigen; Picornavirus; capsid protein; antibody; detection; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example; Page 53; 90pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1983-807942/44.
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(SCRI-) SCRIPPS CLINIC & RE
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                                                                                                                  of polio virus VP1 capsid protein at position 182-201.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         20 AA;
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84US-0653475.
84US-0682819.
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14-APR-1982;
20-SEP-1984;
18-DEC-1984;
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                                                                                                      14-NOV-1994;
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                                                           14-NOV-1994;
                                                                                                                                                 08-JUL-1997
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                    (UYAR-) UNIV
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7; Conser
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                  ARIZONA STATE
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82US-0368308.
84US-0653475.
84US-0682819.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               phakellistatin; sponge; cytostatic;
                                                                                                                                                                                                                                "the carboxy group of this residue forms a peptide bond with the inino group of Pro(1), i.e. the residue is a component of a cyclic peptide and is not a C-terminal"
                                                                                                                                                                                                                                                                                                                                                                                                           "the imino group of this residue forms
                                                                                                                                                                                                                                                                                                                                           peptide bond with the carboxy group of Ile(10), i.e. the residue is a component of a cyclic peptide and is not an N-terminal"
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The patent discloses six new cyclic peptides which have been isolated from the Western Pacific Ocean sponge Phakellia costata. They are: cyclo-(pro-Thr-Pro-Phe-Ile-Phe-Ser) (designated phakellistatin 4), cyclo-(pro-Thr-Leu-Pro-Phe-Ile-Phe-Ser) (designated phakellistatin 5), cyclo-(pro-Trp-Leu-Pro-Ile-Phe-Nala-Ile) (designated phakellistatin 5), cyclo-(pro-Pro-Ile-Phe-Nala-Leu-Pro-Pro-Tyr-Ile) (designated phakellistatin 6), cyclo-(pro-Pro-Ile-Phe-Nala-Leu-Pro-Pro-Tyr-Ile) (designated phakellistatin 8) and cyclo-(pro-Pro-Ile-Phe-Val-Leu-Pro-Pro-Ile-Phe-Val-Leu-Pro-Pro-Tyr-Ile) (designated phakellistatin 8) and cyclo-(pro-Pro-Ile-Phe-Val-Leu-Pro-Pro-Tyr-Ile) (designated phakellistatin 9). The cyclic peptides all cdemonstrate in vitro p388 ED50 values of between 0.18 and 4.1 mcg/ml. They also demonstrate in vitro growth inhibitory activity against the present sequence is that of phakellistatin 8 which demonstrates an cin vitro ED50 value against p388 cells of 2.9 mcg/ml.
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Best Local S
Matches 5
                      Inhibiting particular protein kinases that have non-bulky residue in the ATP binding site using pyridinyl-imidazole derivative, e.g. for reducing deposition of extracellular matrix
                                                                                 WPI; 2000-038954/03.
                                                                                                                                                                     09-MAY-1998;
                                                                                                                                                                                                                                                                                                                   MAP kinase; osteoporosis; arthritis;
                                                                                                                                                                                                                                                                                                                              Protein kinase; inhibitor; extracellular matrix deposition; ECM; cancer; tissue regeneration; tissue remodelling; wound healing; injury; fibrosis immunosuppression; diabetic nephropathy; and kidney damage; bone growth;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New cyclic peptide(s) designated phakellistatin -4, -5, and -9 - are isolated from the sponge Phakellia costata
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                                                                                                             Cohen P,
                                                                                                                                                                                                   04-MAY-1999;
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                                                                                                                                                                                                                                                           WO9958128-A1.
                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                           Human Src peptide fragment.
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                                                                                                                                                                                                                                                                                                                     tumor.
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Example 1; Fig 1; 93pp; English.

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RESULT
Y66517
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Best Local
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                                                                          Inhibiting particular protein kinases that have non-bulky residue in the ATP binding site using pyridinyl-imidazole derivative, e.g. for reducing deposition of extracellular matrix
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Protein kinase; inhibitor; extracellular matrix deposition; ECM; cancer; tissue regeneration; tissue remodelling; wound healing; injury; fibrosis; immunosuppression; diabetic nephropathy; and kidney damage; bone growth; MAP kinase; osteoporosis; arthritis; atherosclerosis; cytokine; tumor.
                                                                                                                                                                                                                                                   Cohen P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human Src peptide fragment
                                                                                                                                                                                            WPI; 2000-038954/03.
                                                                                                                                                                                                                                                                                                         (MEDI-) MEDICAL RES COUNCIL.
                                                                                                                                                                                                                                                                                                                                                               09-MAY-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Y66517 standard; peptide; 15 AA.
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les 3; Conserv
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                                                                                                                                                                                                                                                                                                                                                            98GB-0009869
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                                                                                                                                                                                                                                                Eyers PA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6,
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Pred. No.
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Example 1; Fig 1; 93pp; English

DNA encoding the sequence was ligated to

the AOAH gene in

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The inhibitors are specific for the (1), i.e. they do not inhibit similar content of the conten
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Best Local Similarity
Matches 3; Conserv
                                         Claim 18; Page 67; 97pp; English
                                                                                                          Prodn: of acyl:oxy:acyl-hydrolase in eukaryotes - using DNA
constructed encoding whole protein or its sub-units, and used to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to inhibiting a protein kinase (I) that has Thr (or a residue less bulky than Thr) at the position equivalent to Thr 106 in
                                                                                      treat gram negative sepsis
                                                                                                                                                                                     WPI; :1992-114352/14.
                                                                                                                                                                                                                                   Ohara PJ,
                                                                                                                                                                                                                                                                            (ZYMO-) ZYMOGENETICS INC.
(TEXA) UNIV OF TEXAS SYSTEM.
                                                                                                                                                                                                                                                                                                                                                                                                11-SEP-1991;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Modified pre sequence for AOAH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29-JUL-1992 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R22401 standard; Protein; 23 AA
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piyivteyms
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                                                                                                                                                                                                                                   Hagen FS,
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                                                                                                                                                                                                                                   Grant FJ, Munford
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Pred. No.
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34;
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                                                                                                                      N-terminal sequence shows very high levels of homology wiscorresponding region of Schistosoma and mammalian GSTs. Conservation of sequence resulted identities of 55-77% for Fh26b.

See also Q05732-Q05736, R06503 and R06505-R06506.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  expression vector. The vector was used to express the recombinant enzyme, which can be used prophylactically and therapeutically against Gram-negative septicamia in mammals. For treatment, 1 ug-10 mg AOAH is given per 70 kg body wt. The recombinant enzyme is produced in higher levels than found naturally in neutrophils and is more easily purified. See also R22395-400.
                                                                                                                                                                                                                                     Vaccine against liver fluke infection in ruminants. esp. sheep - comprises glutathione-S-transferase extracted from adult fasciola
                                                                                                                                                                                                                                                                                              Crameri SL,
Campbell NJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    glutathione-S-transferase
Fh26b;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-terminal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-JAN-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R06504 standard; protein; 25
                                                                                                   Sequence
                                                                                                                                                                                Fh26b is a GST isolated from the liver fluke F.hepatica.
                                                                                                                                                                                                     Disclosure; Fig 19; 44pp;
                                                                                                                                                                                                                                                                                                                                 (DARA-) DARATECH PTY LTD
                                                                                                                                                                                                                                                                                                                                                                             31-JAN-1990;
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                                                                                                                                                                                                                                                                                                                                                                                                                                              Fasciola hepatica.
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                                             Local Similarity
les 6; Conserv
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les 5; Conserv
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pvrllleyl 23
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25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence of Mr.26000 of F.hepatica GST (Fh26b).
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                                             Conservative
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Thompson C,
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                                                      30.3%;
                                                                                                                                                                                                                                                                                              Wilson R,
, Sexton
                                                                                                                                                                                                       English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GST); liver fluke infection vaccine;
                                           Score 30; DB
Pred. No. 62;
2; Mismatches
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                   levels of homology with
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                                                                 11; Length 25
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The invention relates to inhibiting a protein kinase (I) that has Thr (or a residue less bulky than Thr) at the position equivalent to Thr 106 in. CC SAFKZapp38 by treatment with a pyridiny-imidazole, or related inhibitor. CC The (I) is not SAFKZapp38 or SAFKZapp38betaz. The inhibitors are used CC therapeutically: (i) to treat extracellular matrix (ECM) deposition, to CC encourage tissue regeneration and/or repair, tissue remodelling and CC healing of wounds or injuries, also to reduce scar tissue formation CC developing a brain injury; (ii) to treat patients with (or at risk of CC (eneal) fibrosis, immunosuppression, diabetic nephropathy, and kidney CC (damage; (iii) to treat defects of bone growth or homeostasis (e.g. cc osteoporosis), arthritis and atherosclerosis in which transforming growth factorbeta (but not proinflammatory cytokines) are implicated, and (iv) to treat epithelial, mesenchymal or gilal cancers, solid tumors, CC (including purging bone marrow of affected cells) and T cell lymphoma. CC (including purging bone marrow of affected cells) and T cell lymphoma. CC consequence animals (or transfected cells) that include a protein kinase in which the position equivalent to 106 is mutated are used to determine the physiological role of the kinase and to identify its substrates, and CC the physiological role of the kinase and to identify its substrates, and CC the physiological role of the kinase and to identify its substrates, and CC the physiological role of the kinase and to identify its substrates, and CC the inhibitors are specific for the (I), i.e. they do not inhibit similar CC protein kinase in which the position equivalent to Thr 106 is occupied by Met or some other bulky residue.
Query Match
Best Local S
Matches 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Inhibiting particular protein kinases that have non-bulky residue in the ATP binding site using pyridinyl-imidazole derivative, e.g. for reducing deposition of extracellular matrix -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Y66490 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Protein kinase; inhibitor; extracellular matrix deposition; ECM tissue regeneration; tissue remodelling; wound healing; injury; immunosuppression; diabetic nephropathy; and kidney damage; bon MAP kinase; osteoporosis; arthritis; atherosclerosis; cytokine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human PDGF receptor peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-MAR-2000
                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 1; Fig 1; 93pp; English.
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  Similarity
3; Conser
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                  29.3%;
37.5%;
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  Score 29; DB
Pred. No. 51;
4; Mismatches
                                          21;
                                       Length 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       injury; fibrosis;
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RESULT 25 Y66491

Y66491;

Y66491 standard; peptide; 15 AA

Human Lck peptide fragment. 07-MAR-2000 (first entry)

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ρy
                                                                                                                                                                         The invention relates to inhibiting a protein kinase (I) that has Thr (or creative less bulky than Thr) at the position equivalent to Thr 106 in CC SAPKAzpj88 by treatment with a pyridinyl-imidazole, or related inhibitor. CC The (I) is not SAPKZapj88 or SAPKZbpj88beta2. The inhibitors are used compounded the sain of the contrage tissue regeneration and/or repair, tissue remodelling and compounded the contrage tissue regeneration and/or repair, tissue remodelling and compounded the contrage tissue regeneration and/or repair, tissue remodelling and compounded the contrage contrages and compounded the contrage contrages and contrages and contrages and contrages are tissue formation. CC developing a brain injury; (ii) to treat patients with (or at risk of CC developing) end-stage organ failure, pathological ECM accumulation, contrage; (iii) to treat defects of bone growth or homeostasis (e.g. costeoporosis), arthritis and atherosclerosis in which transforming growth contrages (iii) to treat defects of bone growth or homeostasis (e.g. costeoporosis), arthritis and atherosclerosis in which transforming growth contrages (but not proinflammatory cytokines) are implicated, and (iv) to treat epithelial, mesenchymal or glial cancers, solid tumors, contragenic animals (or transfected cells) that include a protein kinase contragenic animals (or transfected cells) that include a protein kinase contragenic animals (or transfected cells) that include a protein kinase can be used to screen for drugs (or lead compounds). CC The inhibitors are specific for the (I); i.e. they do not inhibit similar correction which the position equivalent to Thr 106 is occupied to be protein kinase can be used to grow and to identify its substrates, and contrage of the bright of the contragent contragency of the contragency
                                                Query Match
Best Local S
Matches 3
                                                                                                                                                                       Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Inhibiting particular protein kinases that have non-bulky residue in the ATP binding site using pyridinyl-imidazole derivative, e.g. for reducing deposition of extracellular matrix -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2000-038954/03
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                                                  Local Similarity 37.1 tes 3; Conservative
     6 PVFVLLEY 13
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4; Mismatches
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Search completed: February 5, 2001, 10:47:34 Job time: 628 sec

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1: sp_archea:*
2: sp_bacteria
3: sp_fungi:*
4: sp_human:*
5: sp_inverteb:
6: sp_mammal:*
7: sp_mhc:*
8: sp_organel:
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:
12: sp_vertebr:
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14: sp_unclass:
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Gapop 10.0 , Gapext 0.5
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24.999 Million cell updates/sec
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Q9twt4 lumbricus t
O62645 saguinus oe
O46665 macropus ro
Q9jic5 mus musculu
Q84772 human papil
Q10722 engelmannia
Q40181 lemna gibba
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Q69381 herpes simp
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Q9KEL4;
Q1-OCT-2000 (TIEMBLrel. 15, C
01-OCT-2000 (TIEMBLrel. 15, L
01-OCT-2000 (TIEMBLrel. 15, L
BH0838 PROTEIN.
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ALIGNMENTS

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	DT 01-MAY-2000 (TrEMBLrel. 13, Created) DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update) DT 01-JUN-2000 (TrEMBLrel. 14, Last annotation update)	RESULT 2 Q9TWT4 ID Q9TWT4 PRELIMINARY; PRT; 15 AA. AC Q9TWT4;	Qy 5 VISNPAATHQ 14 :: :: Db 5 VLANPAVIYE 14	Query Match 26.2%; Score 27; DB 2; Length 14; Best Local Similarity 40.0%; Pred. No. 3.9e+02; Matches 4; Conservative 4; Mismatches 2; Indels 0; Gaps
а· ``				aps
				0;

SEQUENCE FROM N.A.
STRAIN-C-125 / JCM 9153;
Takami H., Nakasone K., Takaki Y.;
Takami H., Nakasone K., Takaki Y.;
Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AP001510; BAB04557.1; -.
SEQUENCE 14 AA; 1564 MW; C0359E12C13F5D4D CRC64;

Bactéria; Firmicutes; Bacillus/Clostridium group; Bacillus/Staphylococcus group; Bacillus. NCBI_TaxID-86665;

Bacillus halodurans.

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PRT;

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01-JUN-1998 (TrEMBLrel.
01-JUN-1998 (TrEMBLrel.
01-MAY-2000 (TrEMBLrel.
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                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE-98161817; PubMed-9494010;
Murakami Y., Seya T., Kurita M., Fukui A.,
"Molecular cloning of membrane cofactor pro-
cell, an Epstein-Barr virus-transformed mar
is susceptible to infection by the CAM, but
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-AUG-1998 (TrEMBLrel. 07, Created)
01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
01-NOV-1998 (TrEMBLrel. 08, Last annotation update)
MEMBRANE COFACTOR PROTEIN CD46 (FRAGMENT).
Saguinus cedipus (Cotton-top tamarin).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Buharyota; Metazoa; Primates; Platyrrhini; Callitrichidae; Saguin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       O62645;
01-AUG-1998 (TrEMBLrel.
01-AUG-1998 (TrEMBLrel.
01-NOV-1998 (TrEMBLrel.
SEQUENCE FROM N.A. MEDLINE-97224585;
                                              Eukaryota; Metazoa; Cl
Mammalia; Metatheria;
                                                                                  G6PD.
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                                                                                                                                                                                                                                                                                                                                                          the measles virus.";
Biochem. J. 330:1351-1359(1998).
EMBL; AB001991; BAA25631.1; ...
                       NCBI_TaxID=35580; [1]
                                                                                              GLUCOSE-6-PHOSPHATE
                                                                     Macropus robustus robustus
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 PubMed-9060417
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                                                           Chordata;
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                                             Diprotodontia;
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YDROGENASE (FRAGMENT).
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                                              Craniata; Vertebrata; Euteleostomi;
dontia; Macropodidae; Macropus.
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n (MCP; CD46) on B9
et B cell line: B95
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01-NOV-1996 (Tremblrel. 0
01-NOV-1996 (Tremblrel. 0
01-NOV-1998 (Tremblrel. 0
E6 PROTEIN (FRACMENT).
SEQUENCE FROM N.A. MEDLINE-88089511; P. Krubke J., Kraus J. Pfister H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09JIC5
09JIC5;
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                                                                                                                                                                 Human papillomavirus type 1
Viruses; dsDNA viruses, no
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"High Resolution Genetic and
C57BL/6J implicates Naip2 or
Pathogenesis.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
NCBI_TaxID=10090;
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EMBL: U53775; AAC48790.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
STRAIN-C57BL/6J;
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01-NOV-1996 (TrEMBLrel. 01, Last annotation update)
NEGATIVELY LICHT-REGULATED PROTEIN (LG106) (FRAGMENT).
Lemna gibba (Swollen duckweed).
Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;
Magnoliophyta; Lillopsida; Araceae; Lemna.
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NON_TER
SEQUENCE
SEQUENCE FROM N.A.
ORUBATA P.A., FLOTES S., Tobin E.M.;
Plant Mol. Biol. 11:673-681(1988).
EMBL; M35866; AAA33395.1; ~.
NON_TER 1 1
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Huynh Q.K., Borgmeyer J.R., Smith C.E., Bell L.D., S
"Isolation and characterization of a 30 kba protein
activity from leaves of Engelmannia pinnatifida.";
Biochem. J. 316:723-727(1996).
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01-NOV-1996 (TrEMBLrel. 01, Created)
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01-NOV-1998 (TrEMBLrel. 08, Last annotation updat
30 KDA ANTIFUNGAL PROTEIN (FRAGMENT).
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J. Gen. Virol. 68:3091-3103(1987).
EMBL; D00204; BAA00143.1;
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EMBL; D00204; BAA00143.1;
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              Nadeau J.H.;
"Genetic mapping of 40 cDNA clones on Mamm. Genome 5:349-355(1994).
-I- FUNCTION: THYROID HORMONE-BINDING THYROXINE FROM THE BLOODSTREAM TO
-I- SUBBUNIT: HOMOTETRAMER.
                                                                                                                                                      STRAIN-SPRET/EI;
MEDLINE-94319082;
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Mammalia; Eutheria;
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Eukaryota; Viridiplantae; Embryophyta; Tracheophyta;
Magnoliophyta; Liliopsida; Araceae; Lemna.
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                                                                                                                                                                                                                                                         Mus spretus (Western wild mouse).
Eukaryota; Metazoa; Chordata; Cra
Mammalia; Eutheria; Rodentia; Sci
                                                                                                                                                                                                                                                                                                                                 01-JUN-1998 (TrEMBLrel. 06, Created)
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: Mol. Biol. 15:955-956(1990).
: M4075; CAA32238.1
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ol. 11:673-681(1988).
AAB60461.1;
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Horton J.H., Ha
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Sciurognathi; Muridae;
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                       SEQUENCE FROM N.A.

MEDLINE-84015370; PubMed=6312416;

MEDLINE-84015370; PubMed=6312416;

Mitton J.L., Rixon F.J., Easton A.J., Clemer

I "Immediate-early mRNA-2 of herpes simplex vi:

T unspliced: conserved sequences around the 5'

to transcription regulatory signals.";

To transcription regulatory signals.";
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Best Local Similarity
Matches 4; Conser
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01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
2-OXOGLUTARATE:FERREDOXIN OXIDOREDUCTASE BETA SUBUNIT
(EC 1.2.7.3) (FRAGMENT)
Hydrogenobacter thermophilus.
Bacteria; Aquificales; Aquificaceae; Hydrogenobacter.
NCBI_TaxID-940;
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Albumin;
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                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-96236061; PubMed-8655524;
Yoon K.S., Ishii M., Igarashi Y., Kodama T.;
Yoon K.S., Ishii M., Igarashi Y., Kodama T.;
"Purification and characterization of 2-oxoglutarate:ferredoxin
oxidoreductase from a thermophilic, obligately chemolithoautotrophic
bacterium, Hydrogenobacter thermophilus TK-6.";
J. Bacteriol. 178:3365-3368(1996).
SEQUENCE 20 AA; 2284 MW; BA040417DA7A3392 CRC64;
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x01624; CAA25766.1; -.
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Simplexvirus.
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3.7e+05;
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STRAIN-PATIENT 2;
Okamoto H., Ukita M.,
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Alphaherpesvirinae; Simplexvirus.
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"Circular double-stranded forms
J. Virol. 74:5161-5167(2000).
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J. Virol. 73:8720-8731(1999).
EMBL: AR174592 AAF00716.1; -.
INTERPRO: IPR000328; -.
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NCBI_TaxID=11676;
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Viruses; Retroid viruses; Retroviridae; Lentivirus
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Viruses: Retroid viruses; Retroviridae;
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AF174695; AAF00723.1;
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GLYCOPROTEIN (FRAGMENT).
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2.1e+03;
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Q9QGG0;
01-MAY-2000
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                                    recombination events in the evolution J. Virol. 73:8720-8731(1999).
EMBL; AF174698; AAF00729.1; -.
INTERPRO; IPRO00328; -.
PFAM; PF00517; GP41; 1.
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NON_TER 1
SEQUENCE 22 AA;
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Bell J.E., Simmonds P.;
"Mosaic structure of the human immunodeficiency virus type 1 genome
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Bell J.E., Simmonds P.;
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Viruses; Retroid viruses; Retroviridae;
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                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
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Morris A., Marsden M., Halcrow K.,
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                                                                                                                                               infecting lymphoid cells and the
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6; Conservative
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                  protein.
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GLYCOPROTEIN (FRAGMENT).
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                                                                                                                           the human immunodeficiency virus type 1 genome ells and the brain: evidence for frequent In vinin the evolution of regional populations.";
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Pred. No. 2.1e
1; Mismatches
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01-MAY-2000
"Mosaic structure of the human immunodeficiency virus type 1 genome infecting lymphoid cells and the brain: evidence for frequent in virus recombination events in the evolution of regional populations."; J. Virol. 73:3720-8731(1999).
                                                                 Morris A., Marsden M., Halcrow Bell J.E., Simmonds P.;
                                                                                                                                                                                 Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
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01-MAY-2000 (TIEMBLIEL. 13, Last sequence update)
01-JUN-2000 (TIEMBLIEL. 14, Last annotation update)
ENVELOPE GLYCOPROTEIN (FRAGMENT).
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EMBL: AF174702: AAF00737.1; ...
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 MEDLINE=99412391; PubMed=10482626; Morris A., Marsden M., Halcrow K.,
                                                                               Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
NCBI_TaxID-11676;
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Morris A., Marsden M., Halcrow K., Hughes
Bell J.E., Simmonds P.;
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P9351;

Ol-MAY-1997 (TrEMBLrel. 03, Last sequence update)
Ol-MAY-1997 (TrEMBLrel. 15, Last annotation update)
Ol-OCT-2000 (TrEMBLrel. 15, Last annotation update)
COPPER AMINE OXIDASE (FRAGMENT).
Arabidopsis thaliana (Mouse-ear cress).
Eukaryota; Viridiplantae; Embryophyta; Tracheophyta
Magnoliophyta; eudicotyledons; core eudicots; Rosid
Brassicales; Brassicaceae; Arabidopsis.
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01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-OCT-2000 (TREMBLrel. 15, Last annotation update)
01-OCT-2000 (TREMBLREL 15, Last annotation update)
ALCOHOL DEHYDROGENASE ISOZYME 2 (FRAGMENT).
Saccharomyces douglasii (Yeast).
Saccharomyceta; Fungi; Ascomycota; Saccharomycetes; Saccharomycetales;
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EMBL; AF174703; AAF00739.1; -.
INTERPRO; IPR000328; -.
INTERPRO; IPR000328; -.
INTERPRO; IPR000328; -.
Moller S.G., Mcpherson M.J.;
Biochem. Soc. Trans. 23:0-0(1995).
EMBL, S82298, AAB37691.1; -
INTERPRO; IPRO00269; -
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Gene 245:299-309(2000).
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Pred. No. 2.4e+03;
1; Mismatches 4
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dicots; Rosidae; eurosids II;
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Q9S8W9;
Q1-MAY-2000 (TrembLrel. 13, Created)
Q1-MAY-2000 (TrembLrel. 14, Last sequence update)
Q1-JUN-2000 (TrembLrel. 14, Last annotation update)
SELF-INCOMPATIBILITY S3 GLYCOPROTEIN (FRAGMANY).
Nicotiana alata (Winged tobacco) (Persian tobacco).
Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;
Magnollophyta; eudicotyledons; core eudicots; Asteridae; euasterids
Solanales; Solanaceae; Nicotiana.
                                                                                                                                               MEDILINE-92404717; PubMed-2535548; Jahnen W., Batterham M.P., Clarke A.E., Moritz R.L., Simpson R.J.; Tahnen W., Batterham M.P., Clarke A.E., Moritz R.L., Simpson R.J.; "Identification, 1solation, and M-terminal sequencing of style glycoproteins associated with self-incompatibility in Nicotiana alata."; Plant Cell 1:493-499(1989).

SEQUENCE 15 AA; 1814 MW; D9F5D7B05B215937 CRC64;
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Pred. No. 2.1e+03;
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PKI2_S
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SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Two distinct subunits of hemerythrin from the brachlopod Lingula reevil: an apparent requirement for cooperativity in 02 binding."; Biochemistry 30:9121-9124 (1991).
-i- FUNCTION: HEMERYTHRIN IS A RESPIRATORY PROTEIN IN BLOOD CELLS CERTAIN MARINE WORMS. THE OXYGEN-BINDING SITE IN EACH CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                [1]
SEQUENCE.
MEDLINE-91369922; PubMed-1892823;
MEDLINE-91369922; PubMed-1892823;
                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                         Serine protease inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                                          INTERPRO; IPRO02160; -.
PFAM; PF00197; Kunitz_legume;
PROSITE; PS00283; SOYBEAN_KUN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN-CV. RUSSET BURBANK; Walsh T.A., Twitchell W.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Solanum tuberosum (Potato).
Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spe
Magnoliophyta; eudicotyledons; core eudicots; Asteridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-MAR-1992 (Rel. 21, Created)
01-MAR-1992 (Rel. 21, Last sequence update)
01-MAR-1992 (Rel. 21, Last annotation update)
01-MAR-1992 (Rel. 21, Last annotation update)
KUNITZ-TYPE INHIBITOR-2 (PKI-2) (FRAGMENT).
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Oxygen transport; Metal-binding; Iron.
METAL 24 24 IRON 1 (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Solanales; Solanaceae; Solanum.
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SUBUNIT: OCTAMER COMPOSED OF TWO TYPES
SIMILARITY: BELONGS TO THE HEMERYTHRIN
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                                                                                                                                  RYIINNP
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5; Conserv
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                       STANDARD;
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3.7e+02;
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3.5e+02;
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                                                                                                                                                                                                                                                                  Length 25;
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4 MVISNPAATHQDIDF 18

MTWSKPAYTDLRIGF

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Matches
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01-OCT-1996
01-OCT-1996
                                                                            PQQ.
SEQUENCE
                                                                                                                                                                                                                                                                            Schnider U., Keel C., Defago G., Haas D.;
"Th5-directed cloning of pqq genes from Pseudomonas fluorescens CHAO:
"Th5-directed cloning of pqq genes from Pseudomonas fluorescens CHAO:
"Th5-directed cloning of pqq genes from Pseudomonas fluorescens CHAO:
"Th5-directed cloning of pqq genes from Pseudomonas fluorescens CHAO:
"Th5-directed pyoluteorin";

Appl. Environ. Microbiol. 61:3856-3864(1995).

-I- FUNCTION: REQUIRED FOR COENZYME PYRROLO-QUINOLINE-QUINONE (PQQ)

BIOSYNTHESIS. THIS PROTEIN COULD FUNCTION AS A TEMPLATE FOR PQQ

SYNTHESIS AND PROVIDE THE GLUTAMATE AND TYROSINE RESIDUES WHICH

ARE NECESSARY FOR THE SYNTHESIS.

-I- SIMILARITY: TO OTHER BACTERIAL PQQA.
                                                                                                           EMBL;
                                                                                                                         EMBL;
                                                                                                                                                     use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an entitles requires a license agreement (See http://www.isborsend an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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Pseudomonas.
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                                                                                                                                                                                                                   the European Bioinformatics Institute.
                                                                                                                                                                                                                                   between
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                                                                                                                                                                                                                 SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation European Bioinformatics Institute. There are no restrictions on its
                                                                                                           X87299; CAA60732.1;
X87299; CAA60731.1;
Similarity 46.7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PQQ
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(Rel.
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34, Last sequence update)
34, Last annotation updat
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                                                                              2871
                23.3%;
                                                                               MW;
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Pred. No. 5.2e
0; Mismatches
                                                                              ED13A879B2EA3E8E
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               update)
                   2e+02
                                  1;
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                              Length 24;
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BUK_CLOPA
                                                                                                                                                                                                                                                                                                                                                                                       RESULT
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                                                                                                                                                                                                                                                                                                  15-JUL-1998
15-JUL-1998
15-JUL-1998
                                      "Two-dimensional gel electrophoresis separation and N-terminal sequence analysis of proteins from Clostridium pasteurianum W5 Electrophoresis 19:802-806(1998).

Electrophoresis 19:802-806(1998).

FUNCTION: CATALYSES THE CONVERSION OF BUTYRYL-COA THROUGH E PHOSPHATE TO BUTYRATE (BY SIMILARITY).

FUNCTION: CATALYSES THE CONVERSION OF BUTYRYL-COA THROUGH E PHOSPHATE TO BUTYRATE (BY SIMILARITY).

FUNCTION: ATP + 2-BUTANOATE - ADP + BUTANOYL PHOSPHATE INVOLVED IN THE ACLIOGENIC PHASE OF FERMENTATION.
                                                                                                                                                                                                                                       Clostridium
Bacteria; Fi
                                                                                                                                                              MEDLINE=98291870;
                                                                                                                                                                               STRAIN-W5
                                                                                                                                                                                                                                                                                  BUTYRATE KINASE
                                                                                                                                                Flengsrud R., Skjeldal L.;
                                                                                                                                                                                             SEQUENCE
                           I- SIMILARITY: BELONGS TO THE ACETOKINASE FAMILY
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8 (Rel. 36, Last anno
1NASE (EC 2.7.2.7) (B
                                                                                                                                                                                                                                                      pasteurianum
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ACETATE_KINASE_1;
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38) (FRAGMENT).
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PROSITE;

PS01076;

ACETATE_KINASE_2;

PARTIAL

Kinase.

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01-OCT-1996 (Rel
15-JUL-1999 (Rel
UNKNOWN PROTEIN)
                                                                                                                                                                                                                    P1321;
p1321;
01-JAN-1990 (Rel. 13, Created)
01-JAN-1990 (Rel. 13, Last sequence update)
01-FEB-1994 (Rel. 28; Last annotation update)
SARAFOTOXIN-D (S6D) (SRTX-D).
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SEQUENCE 9
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SEQUENCE
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                  Bdolah A., Wollberg Z., Flemir "SRTX-d, a new native peptide FEBS Lett. 256:1-3(1989).
                                                                                                                                                        Atractaspis engaddénsis (Israeli burrowing asp).
Eukaryota; Metazoa; Chordata; Cranlata; Vertebrata;
Lepidosauria; Squamata; Scleroglossa; Serpentes; Col
Atractaspididae; Atractaspis.
                                                                                                                                                                                                                                                                                                                                                              ATREN
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Pernollet J.-C., Zivy M., d
"The maize two dimensional
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zea mays (Maize).
Eukaryota; Viridiplantae; 
Magnoliophyta; Liliopsida;
                                                           Bdolah A., Wollberg
                                                                              MEDLINE-90033283;
                                                                                                     TISSUE-VENOM;
                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MAIZEDB;
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3; Conserv
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(Rel. 34, Last sequence update)
(Rel. 38, Last annotation update)
(Rel. 38, Last annotation ColeopTile (SPOT)
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AA;
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VASOCONSTRICTOR ACTIVITY.
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                                     PubMed=2509240;
erg Z., Fleminger a
tive peptide of t
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v93:997-1005(1996).
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37.5%;
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., de Vienne D.;
... gel protein databas
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Poales; Poaceae; Zea.
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Pred. No.
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                                   the
                                       endothelin/sarafotoxin family.";
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. 4.6e+02;
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8.9e+04;
  THESE TOXINS CAUSE CARDIAC
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                                                                                                                                                                                               Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Spermatophyta;
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Best Local 9
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P40732;
01-FEB-1995
01-FEB-1995
01-FEB-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
DISULFID
SEQUENCE
                                                                                                                     use by non-profit institutions as long ass modified and this statement is not removed. U entitles requires a license agreement (See http://or.send.an.email.to.license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.

MEDLINE-90094246; PubMed-2403545;

Tran P.V., Bannor T.A., Doktor S.Z., Nichols B.P.;

"Chromosomal organization and expression of Escherichia coli pa
"Chromosomal organization and expression of Escherichia coli pa
"Bacteriol. 172:397-410(1990).

"Bacteriol. 172:397-410(1990).

"CATALYTIC ACTIVITY: NZ-ACETYL-L-ORNITHINE + 2-OXOGLUTARATE
N-ACETYL-L-GLUTAMATE 5-SEMIALDEHYDE + L-GLUTAMATE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PIR; S06145; S06145.
HSSP; P13208; 1SRB.
INTERPRO; IPR001928;
                                                                                             EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SALTY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PFAM; PF00322; endothelin; 1. PRINTS; PR00365; ENDOTHELIN. PROSITE; PS00270; ENDOTHELIN;
                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a between the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict
                                                                                                                                                                                                                                                         -1- COFACTOR: PYRIDOXAL PHOSPHATE.
-1- PATHWAX: FOURTH STEP IN ARGININE BIOSYNTHESIS.
-1- MISCELLANEOUS: THE REACTION CATALYZED BY ACOAT IS HIGHLY
-1- REVERSIBLE. MOREOVER THIS ENZYME MAY TRANSAMINATE ORNITHINE.
-1- SIMILARITY: BELONGS TO CLASS-III OF PYRIDOXAL-PHOSPHATE-DEPENDENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Venom;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ARREST PROBABLY AS A RESULT OF CORONARY VASOPLASM.
-!- MISCELLANEOUS: LD(50) IS 0.35 MG/KG BY INTRAVENOUS
-!- SIMILARITY: BELONGS TO THE ENDOTHELIN/SARAFOTOXIN I
Arginine biosynthesis.
NON_TER 17 17
SEQUENCE: 17 AA; 190
                                                                               STYGENE;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Salmonella
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                                         Transferase; Aminotransferase;
                                                   PROSITE; PS00600; AA
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                                                                            M32354; AAA24265.1;
M32355; AAA27178.1;
NE; SG10488; ARGD.
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(Rel. 31, Last annotation
(Rel. 31, Last annotation
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                                      AA_TRANSFER_CLASS_3; PARTIAL otransferase; Pyridoxal phosp)
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WW;
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Pred. No.
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BY SIMILARITY.
83A8A04D1D536AE2 CRC64;
  03DD865FE9D1E6B9 CRC64;
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2.6.1.11)
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6.7e+02;
                                      phosphate;
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                                                                                                                                                              Usage
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Query Match Best Local S Matches 6

6; Conserv

Conservative

21.4%;

Score 22; DB 1; Pred. No. 7.9e+02; 1; Mismatches 10

Length 17;

Indels

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Gaps

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FIBA_CEREL
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FIBRINOPEPTIDE A.
Cervus elaphus (Red deer), and Cervus Elaphus (Red Jervus), and Cervus)
Eukaryota; Metazoa; Chordata; Craniata;
Mammalia; Eutheria; Cetartiodactyla; Ru
Mammalia; Cervus.
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Best Local
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SEQUENCE:
SPECIES-C.E.NELSONI;
SPECIES-C.E. Doolittle R.F.;
Mross G.A., Doolittle R.F.;
Mross dequence studies on artiodacty fibrinopeptides.";
"Amino acid sequence studies on artiodacty fibrinopeptides.";
"Anch. Biochem. Biophys. 122:674-684(1967).
-i- FUNCTION: FIBRINOGEN HAS A DOUBLE FUNCTION: YIELDING MONOMERS."
-i- FUNCTION: FIBRINOGEN HAS A DOUBLE FUNCTION: YIELDING MONOMERS."
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SEQUENCE
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01-JAN-1990 (Rel. 13, Last sequence up
01-JAN-1990 (Rel. 13, Last annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Can. J. Biochem. Cell Biol. 62:426-433(1984)
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                                                                                                                                   Blomback
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Halobacterium cutirubrum.
Archaea; Euryarchaeota; F
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30-MAY-2000
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P05975;
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                                                                                                                                                         SEQUENCE.
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                                                                                                                                                                                                                                                                                                                                                                                                                                              Ribosomal protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE;
                                                                                                          lomback B., Blomback M., Grondahl N. Studies on fibrinopeptides from mamm cta Chem. Scand. 19:1789-1791(1965).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NTERPRO; IPRO01014; -.
PROSITE; PS00050; RIBOSOMAL_L23;
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SIMILARITY: BELONGS TO
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(Rel.
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                                                                                                                     Grondahl N.J.;
es from mammals.";
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annotation update)
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Craniata; Vertek
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8.4e+02;
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the archaebacterium
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RESULT 12
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Matches
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-!- MISCELLANEOUS: CONVERSION OF FIBRINGEN TO FIBRIN IS TRIGGERED
THROMBIN, WHICH CLEAVES FIBRINGEPTIDES A AND FROM ALPHA & BE
CHAINS AND THUS EXPOSES THE N-TERMINAL POLYMEBRIZATION SITES
RESPONSIBLE FOR THE FORMATION OF THE SOFT CLOT.
BLOOD COAGULATION; Plasma.
                                                                                                                                                                                                                                                              15-JUL-1999 (Rel. 38,
15-JUL-1999 (Rel. 38,
01-OCT-2000 (Rel. 40,
L-DOPACHROME-METHYL I
BIBROTOXIN (BTX).
Atractaspis bibroni (Southern bibron's) (Stiletto snake)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eute
Lepidosauria; Squamata; Sclerogiossa; Serpentes; Colubro
Atractaspididae; Atractaspis.
                                                                         BTX_ATRBI
P80163;
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NON_TER
SEQUENCE
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PROSITE; I
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SEQUENCE
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Eukaryota; Metazoa; Nematoda; Enoplea; Trichocephi
Trichocephalina; Trichinelloidea; Trichinellidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TRISP
                                                01-APR-1993
01-NOV-1997
                                                                  01-APR-1993
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15-JUL-1999
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nes 6; Conserv
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38, Last sequence upda
40, Last annotation upda
141, ESTER TAUTOMERASE ()
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35,
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8.9e+02;
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8.9e+02;
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of L-dopamine-methyl-ester
tory factor) from Trichinella
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           Colubroidea;
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                    Euteleostomi;
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DISULFID
SEQUENCE
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SEQUENCE.
TISSUE-VENOM;
MEDLINE-93106214;
                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collab between the Swiss Institute of Bioinformatics and the EMBL outst the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for comentities requires a license agreement (See http://www.isb-sib.ch/anor send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.

MEDLINE-95212914; PubMed-7535281;

Rouhbakhsh D., Baumann P.;

"Characterization of a putative 235-55 rRNA operon of Buchnera aphidicola (endosymbiont of aphids) unlinked to the 165 rRNA-e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30-MAY-2000 (Rel. 39, Last sequence update)
01-CCT-2000 (Rel. 40, Last annotation update)
SHIKIMATE 5-DEHYDROGENASE (EC 1.1.1.25) (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q44607;
30-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -1- FUNCTION: VASOCONSTRICTOR ACTIVITY. THESE TOXINS CAUSE CARDIAC ARREST PROBABLY AS A RESULT OF CORONARY VASOPLASM.
-1- SIMILARITY: BELONGS TO THE ENDOTHELIN/SARAFOTOXIN FAMILY.
PIR: S27039; S27039.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Becker A., Dowdle
Schleuning W.-D.;
                                              Aromatic
                                                                          EMBL; U10496; AAA79125.1; ALT_FRAME
                                                                                                                                                                                                                                                                                                                                                                                                                    -! PATHWAY: FOURTH STEP IN THE BIOSYNTHESIS OF CHORISMATE WITHIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ğene 155:107-112(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bacteria; Proteobacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     symbiotic bacterium)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Buchnera aphidicola (subsp. Acyrthosiphon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRINTS; PR00365; ENDOTHELIN.
PROSITE; PS00270; ENDOTHELIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INTERPRO; IPRO01928; -. PFAM; PF00322; endothelin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Bibrotoxin, a novel member of the endot family, from the venom of the burrowing FEBS Lett. 315:100-103(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     - ! - CATALYTIC ACTIVITY:
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                                                                                                                                                                                                                                                                                                                                       BIOSYNTHESIS OF AROMATIC AMINO ACIDS (THE SHIKIMATE PATHWAY).
SIMILARITY: BELONGS TO THE SHIKIMATE DEHYDROGENASE FAMILY.
CAUTION: REF. I SEQUENCE DIFFERS FROM THAT SHOWN DUE TO A
                                                                                                                                                                                                                                                                                                                     FRAMESHIFT IN POSITION 13.
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3; Conservative
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  AA;
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2590 MW; 23AE77462AB812E6 CRC64;
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                                              biosynthesis;
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75.0%;
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Pred. No. 9.9e+02.
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BY SIMILARITY.
83A5DFB81D036AE2 CRC64;
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                                                                                                                                                                                                                                          a collaboration - MBL outstation -
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P20461;
01-FEB-1991 (Rel. 17, Created)
01-FEB-1991 (Rel. 17, Last seque
30-MAY-2000 (Rel. 39, Last annot
EUKARYOTIC TRANSLATION INITIATIO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ECD1_LYMDI
P80936; P558
01-NOV-1997
       SUZUKI H., Mukouyama E.B.;

"Pig liver translational initiation factor eIF-2: N-terminal am acid sequences of alpha and gamma subunits and the phosphorylat site structure.";

-i- function: EIF-2 FUNCTIONS IN THE EARLY STEPS OF PROTEIN SYN BY FORMING A TERNAXY COMPLEX WITH GTP AND INITIATOR TRNA. TO COMPLEX BINDS TO A 40S RIBOSOMAL SUBUNIT, FOLLOWED BY MINA TO FORM A 43S PREINITIATION COMPLEX. JUNCTION OF THE 60S RI SUBUNIT TO FORM THE 80S INITIATION COMPLEX IS PRECEDED BY HYDROLYSIS OF THE GTP BOUND TO EIF-2 AND RELEASE OF AN EIF-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence
01-NOV-1997 (Rel. 35, Last annotatio
TESTIS ECDYSIOTROPIN PEPTIDE 1 (TE).
                                                                                                                                                                               Sus scrofa (Pig).
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Wagner R.M., Loeb M.J., Kochansky J.P.,
Bell R.A.;
                                                                                                                                             SEQUENCE.
TISSUE-LIVER;
                                                                                                                                                                                                                  EIF2S3 OR EIF2G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 brain extracts of the the gipsy moth, Lymantria dis
Arch. Insect Biochem. Physiol. 34:175-189(1997).
-I- FUNCTION: START OR BOOST ECDYSTEROID SYNTHESIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lymantria dispar (dypsy moth).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insec
Pterygota; Neoptera; Endopterygota; Lepidoptera; Glossata;
Noctuoidea; Lymantriidae; Lymantria.
                                                                                                                                                                                                                              GAMMA) (FRAGMENT).
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Last annotation update)
N INITIATION FACTOR 2 GAMMA
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Pred. No. 1.5e
3; Mismatches
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Pred. No. 1.5e
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FOR
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1.5e+03;
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1.5e+03,
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Sus.
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           AN EIF-2-GDP
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                                  NA BINDING
RIBOSOMAL
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MOTI_CA
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Best Local S
Matches 3
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Best Local S
Matches 3
                                                                                       LPCP_YEAST
P08521;
01-AUG-1988
01-AUG-1988
.01-NOV-1997
CPA1 LEADER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HOTMONE.
UNSURE
SEQUENCE
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MEDLINE-83195948; PubMed=6844663;

MEDLINE-83195948; PubMed=6844663;

Poitras P., Reeve J.R. Jr., Hunkapiller M.W., Hood L.E., Walsh J.H.

"Poitras P., Reeve J.R. Jr., Hunkapiller M.W., Hood L.E., Walsh J.H.

"Purification and characterization of canine intestinal motilin.";

Regul. Pept. 5:197-208(1983)

-: FUNCTION: PLAYS AN IMPORTANT ROLE IN THE REGULATION OF

INTERDIGESTIVE GASTROLATESTINAL MOTILITY AND INDIRECTLY CAUSES

RHYTHMIC CONTRACTION OF DUODENAL AND COLONIC SMOOTH MUSCLE.

-: SUBCELLULAR LOCATION: SECRETED.
                      Saccharomyces cerevisiae (Baker's Eukaryota; Fungi; Ascomycota; Sacc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P19863;
01-FEB-1991
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Saccharomycetaceae;
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Canis familiaris (Dog).
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15-JUL-1998
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PIR; PT0052; PT0052.
Initiation factor; P
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SUBUNIT: HETEROTRIMER COMPOSED OF AN ALPHA, A BETA, AND A GAMMA CHAIN.
SIMILARITY: BELONGS TO THE GTP-BINDING ELONGATION FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY: BELONGS
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A60313;
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22 AA;
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Canis.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
 MEDLINE-97407910; PubMed-9261134;
Sugasawa T., Matsuzaki-Fujita M.,
Morooka S., Strosberg A.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; M16690; AAA34526.1; -.
EMBL; X01764; CAA25904.1; -.
EMBL; Z75210; CAA99620.1; -.
PIR; A26965; A26965.
PIR; S25434; S25434.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Sequence and analysis of a 36.2 kb fragment from the right arm of yeast chromosome XV reveals 19 open reading frames including SNF2 (5' end), CPA1, SIMY1, a putative transport ATPase, a putative ribosomal protein and an SNF2 homologue."; Yeast 13:479-482(1997).

-I- SIMILARITY: TO A HYPOTHETICAL PROTEIN IN ARG-2 5' REGION FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Werner M., Feller A., Pierard A.;

"Nucleotide sequence of yeast gene CP Al encoding the small subunit
of arginine-pathway carbamoyl-phosphate synthetase. Homology of the
deduced amino acid sequence to other glutamine amidotransferases.";
Eur. J. Blochem. 146:371-381(1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Werner M., Feller A., Messenguy F., Pierard A.;
"The leader peptide of yeast gene CPA1 is essential
translational repression of its expression.";
Cell 49:805-813(1987).
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SEQUENCE FROM N.A.
MEDLINE-87215944;
                                                  STRAIN-WISTAR;
                                                               SEQUENCE.
                                                                                                             Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chor
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Poirey R., Cziepluch C., Tobiasch E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN=S288C / FY
MEDLINE=97298310;
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nes 5; Conserv
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Pred. No. 1.86
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                   Guillaume
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1.8e+03;
                 J.-L.,
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SEQUENCE
                                                              ALLS_MANSE STANDARD; PRT; p42559; 01-NOV-1995 (Rel. 32, Created) 01-NOV-1995 (Rel. 32, Last sequence up 30-MAY-2000 (Rel. 39, Last annotation ALLATOSTATIN (MAS-AS).
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             Eukaryota; Metazoa; Arth
Pterygota; Neoptera; End
Sphingiodea; Sphingidae;
              Manduca sexta (Tobacco hawkmoth) (Tobacco hornworm).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Lepidoptera; Glossata; Di
Sphingiodea; Sphingidae; Sphinginae; Manduca.
                                                                                                                                                                                                                                                                                                                                                                                        Holman G.M., Cook B.J., Nachman R.J.,
"Isolation, primary structure and synthesis of leucomyosuppressin,
an insect neuropeptide that inhibits spontaneous contractions of the
cockroach hindgut.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                           FISSUE-HEAD;
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FUNCTION: MAY MEDIATE RELAXATION OF DEPOLARIZED
IT BINDS IODOCYANOPINDOLOL AND SM-11044.
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-1- MASS SPECTROMETRY: MW-1844; METHOD=FAB.
Amphibian skin; Amidation.
MOD_RES 17 17 AMIDATION.
SEQUENCE 17 AA; 1845 MW: 655R748RP430RC77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Neuropeptide.
MOD_RES
SEQUENCE 15
                                            PSAE_CUCSA STANDARD; PRT; 19 AA.

P42047;

01-NOV-1995 (Rel. 32, Created)

01-NOV-1995 (Rel. 32, Last sequence update)

01-NOV-1995 (Rel. 32, Last annotation update)

PHOTOSYSTEM I REACTION CENTRE SUBUNIT IV (PHOTOSYSTEM PROTEIN) (PSI-E) (PS I SUBUNIT '6) (FRAGMENT).
Cucumis sativus (Cucumber).
Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;
Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids I;
                                      PSAE.
                                                                                                                                                                                                                                                                                                                                                       Paradford A.M., Bowie J.H., Tyler M.J., Wallace : "New antibiotic uperin peptides from the dorsal australian toadlet Uperoleia mjobergii."; hust. J. Chem. 49:1325-1331(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Uperoleia mjobergii (Australian toadlet).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Neobatrachia; Bufonoidea; Myobatrachi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Proc. Natl. Acad. Sci. U.S.A. 88:9458-9462(1991).
-I- FUNCTION: STRONGLY INHIBITS JUVENILE HORMONE BIOSYNTHESIS IN VITRO
BY THE CORPORA ALLATA FROM FIFTH-STADIUM LARVAE AND ADULT FEMALES.
-I- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sexta."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WEDLINE-92052112; PubMed-1946359; Kramer S.J., Toschi A., Miller C.A., Kataoka Li J.P., Carney R.L., Schooley D.A.; "Identification of an allatostatin from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE.
TISSUE-HEAD
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    Created)
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655B748FB438B67B
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1.7e+03
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COXN_THUOB ST
P80980;
01-NOV-1997 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                           Thunnus obesus (Bigeye tuna).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Scombro
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SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Iwasaki Y., Ishikawa H., Hibino T., Takabe T.;

"Characterization of genes that encode subunits of cucumber PS I complex by N-terminal sequencing.",

Biochim. Biophys. Acta 1059:141-148(1991).

-i- FUNCTION: MAY FORM COMPLEXES WITH FERREDOXIN AND FERREDOXIN-
OXIDOREDUCTASE IN PHOTOSYSTEM I (PS I) REACTION CENTRE.

-i- SUBCELLULAR LOCATION: CHLOROPLAST THYLAKOID MEMBRANE.
                                                                                                                                                                                                                              4 FERRICYTOCHROME C. Oxidoreductase; Mitochondrion.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV 1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation update)
CYTOCHROME C OXIDASE POLYPEPTIDE VIIB-LIVER (EC
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[1]
                                                                                                                                                                                                       SEQUENCE
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                                                                                                                                                                                                                                                                                                                                            Arnold S., Lee
Kadenbach B.;
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Arnold S., Lee I., Kim M., Song E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P80981;
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Photosynthesis; Photosystem I; Chloroplast; Thylakoid membrane
NON_TER 19 19
                                                                                                                                                                                                                                                                                                                                                                                                                      Scombridae;
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                                                                                                                 12 THQD 15
                                                                                         4 SHQD
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                                                                                                                                                                                                                                                                    . J. Biochem. 248:99-103(1997).
FUNCTION: THIS PROTEIN IS ONE OF THE NUCLEAR-CODED POLYPEPTIDE CHAINS OF CYTOCHROME C OXIDASE, THE TERMINAL OXIDASE IN MITOCHONDRIAL ELECTRON TRANSPORT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9 PAAT 12
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CATALYTIC ACTIVITY: 4 FERROCYTOCHROME C + O(2) = 2 H(2)O
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4; Conservative
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  35, Created)
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75.0%;
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2e+03;
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NON_TER
SEQUENCE
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P81346;
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                                                                                                                                                                                                                                                                                                 "Two-dimensional gel electrophoresis separation sequence analysis of proteins from Clostridium p
                                                                                                                                                                                                                                                                                                                                                              STRAIN-W5; MEDLINE-98291870; PubMed-9629918;
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Eukaryota; Metazoa; Chordata; Craniata;
Acthopterygil; Neopterygil; Teleostei;
Acanthomorpha; Acanthopterygil; Percomor
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01-NOV-1997 (Rel. 35, Last annotation update
CYTOCHROME C OXIDASE POLYPEPTIDE VIIB-HEART
                                                                                                                           -1- SUBCELLULAR LOCATION: CYTOPLASMIC.
-1- MISCELLANEOUS: ON THE 2D-GEL THE C
5.6, ITS MW IS: 56.2 KDA.
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-i- FUNCTION: THIS PROTEIN IS ONE OF CYTOCHROME C OXIDASE, T
MITOCHONDRIAL ELECTRON TRANSPORT.
                                       Transferase; Kinase;
                                                                INTERPRO; IPRO01576; -
PROSITE; PS00111; PGLYCERATE_KINASE;
                                                                                                                                                                                         -!- PATHWAY: SECOND STEP IN THE SECOND PHASE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  Clostridium.
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Kadenbach B.;
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                                                                                                       SIMILARITY:
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3; Conser
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(Rel. 36, Last annotation updat
(Rel. 36, Last annotation updat
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  2355
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                                         Glycolysis.
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  WW;
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Pred. No.
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  749E31E595C85529 CRC64;
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2.7.2.3)
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                                                                  PARTIAL
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Query Match Best Local Similarity

19

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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.

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Post-processing: Minimum Match 0%
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103
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23.147 Million cell updates/sec
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ALIGNMENTS

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coat protein VPI - human poliovirus 1 (fragment) C;Species: human poliovirus 1 C;Species: human poliovirus 1 C;Date: 01-Dec-1999 #sequence_revision 01-Dec-1989 #text_change 18-Jun-1993 C;Accession: S02473 R;Martin, A.; Wychowski, C.; Couderc, T.; Crainic, R.; Hogle, J.; Girard, M. EMBO J. 7, 2839-2847, 1988 A;Title: Engineering a poliovirus type 2 antigenic site on a type 1 capsid results: A;Reference number: S02473; MUID:89030650 A;Accession: S02473 C;Accession: S00494 R;Makino, N.; Kimura, S. Eur. J. Biochem. 173, 423-430, 1988 Eyr. J. Biochem. 173, 423-430, 1988 A;Title: Subunits of Panulirus japonicus hemocyanin. 1. Isolation and properties. A;Reference number: S00492; MUID:88196131 A;Accession: S00494 hemocyanin chain II - Japanese spiny lobster (fragment) C;Species: Panulirus japonicus (Japanese spiny lobster) C;Date: 31-Dec-1988 #sequence_revision 31-Dec-1988 #text_change 01-Aug-1997 RESULT S00494 A;Status: not compared with conceptual translation A;Molecule type: mRNA A;Residues: 1-16 <MAR> Query Match Best Local Similarity ""+"hes 7; Conserve A;Molecule type: protein A;Residues: 1-20 <MAKN C;Superfamily: hemocyanin C;Keywords: copper; hemolymph; hexamer; oxygen carrier 밁 Query Match Best Local Similarity Thehes 5; Conserv 유 Š Š N 4 MVISNPAATHODIDFLI 20 1 MTVDNPAST 9 4 MVISNPAAT 12 VVASSTAHKQQDINHLL Conservative Conservative 29.18; 30.1%; 55.6%; 18 Pred. No. 40; 2; Mismatches 4; Score 30; DB Pred. No. 78; Mismatches 2; 2 6, Length 20; <u>ب</u> Length 16; Indels Indels 0 0 Gaps Gaps 0 0

RESULT

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Mol. Gen. Genet. 240, 146-150, 1993
A;Title: Saccharopolyspora hirsuta 367 encodes clustered A;Reference number: $35194; MUID:93341453
A;Accession: $35200
A;Status: nrelifications.
                                                                                                                                                                                                                                                                                                                                                                           thyrotropin-releasing hormone receptor, splice form 387 - rat (fragment) C;Species: Rattus norvegicus (Norway rat) C;Date: 30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change 05-Nov-1999 C;Accession: A45096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         alpha-1-antichymotrypsin - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 24-Aug-1996 #sequence_revision 13-Mar-1997 #text_change 31-Mar-1997
C;Accession: $62374
R;Tsuda, M.; Sei, Y.; Ohkubo, T.; Yamamura, M.; Kamiguchi, H.; Akatsuka, A.; Tsuda, T.;
Eur. J. Biochem. 235, 821-827, 1996
A;Title: The defective secretion of a naturally occurring alpha-1-antichymotrypsin varial, Reference number: $62374; MUID:96184564
A;Accession: $62374
Ş
                                                                                                                                            A;Cross-references: GB:S51512; NID:g261982; PIDN:AAB24549.1; PID:g261983 A;Experimental source: GH3 anterior pituitary cells A;Note: sequence extracted from NCBI backbone (NCBIP:120927)
                                                                                                                                                                                                                                                                     R;de la Pena, P.; Delgado, L.M.; del Camino, D.; Barros, F.
J. Biol. Chem. 267, 25708-25708, 1992
A;Title: Two isoforms of the thyrotropin-releasing hormone receptor generated A;Reference number: A45096; MUID:93100278
A;Accession: A45096
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A;Molecule type: DNA
A;Residues: 1-22 <GOU>
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C;Species: Saccharopolyspora hirsuta
C;Date: 10-Dec-1993 #sequence_revision 03-Aug-1995 #text_change 17-Mar-1999
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4e+02;
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3.7e+02;
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C;Date: 28-Oct-1996 #sequence_revision 13-Mar-1997 #text_change 13-Mar-1997
C;Accession: S62890
R;Oderwald, H.; Hughes, M.J.; Jost, J.P.
FEBS Lett. 382, 313-318, 1996
A;Title: Non-histone protein 1 (NHP1) is a member of the Ku protein family 1 A;Reference number: S62889; MUID:96184511
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S70611
                                         A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-14;15-24 <ODE>
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30K protein - Engelmannia pinnatifida (fragment)
C:Species: Engelmannia pinnatifida
C:Date: 14-Apr-1998 #sequence_revision 08-May-1998 #text_change 07-May-1999
C:Accession: S70611
                                                                                                                                                                                                                                           A; Description: Identification A; Reference number: A59325 A; Accession: A59325
                                                                                                                                                                                                                                                                       R;Frias-Lopez, J.
submitted to the Protein Sequence Database, July 2000
submitted to the Protein Sequence Database, July 2000
submitted to the Protein Sequence Database, July 2000
                                                                                                                                                                                                                                                                                                                                        probable bacteriophage receptor BactA {imported] - Bacteroides fragilis (fragment)
C;Species: Bacteroides fragilis
C;Date: 28-Jul-2000 #sequence_revision 28-Jul-2000 #text_change 28-Jul-2000
C;Accession: A59325
                                                                                                                                                        A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-21 <FRI>
A;Experimental source: strain ATCC 51477
A;Note: putative receptor for bacteriophage B40-8
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5, 723-727, 1996
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Pred. No.
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                                                                                                           DB 2;
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                                                                                                         Length 21
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Length 24;

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A;Molecule type: protein
A;Residues: 1-25 <GRA>
A;Experimental source: strain NRRL B-11019
A;Note: sequence extracted from NCBI backbone (NCBIP:130008)
C;Function:
                                                                                                                                                                                                                                                                                                                                                                                      R;KO, M.S.; Wang, X.; Horton, J.H.; Hagen, M.D.; Takahashi, N.;; Maezaki, Y.; Mamm. Genome 5, 349-355, 1994
A;Title: Genetic mapping of 40 cDNA clones on the mouse genome by PCR.
A;Reference number: 148934; MUID:94319082
A;Accession: 149404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Description: catalyzes the hydrolysis of 1,4-beta-xylosidic linkages in xylans A;Pathway: xylan degradation A;Pathway: xylan degradation C;Superfamily: endo-1,4-beta-xylanase; endo-1,4-beta-xylanase homology C;Keywords: extracellular protein; glycosidase; hydrolase; polysaccharide degradation
Sz-glycoprotein - Persian tobacco (fragment) C;Species: Nicotiana alata (Persian tobacco) C;Date: 23-Nov-1991 #sequence_revision 23-No C;Accession: PQ0194
                                                                          RESULT
PQ0194
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C;Species: Mus spretus (western wild mouse)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 05-Nov-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R; Grabski, A.C.; Forrester, I.T.; Patel, R.; Protein Expr. Purif. 4, 120-129, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           endo-1,4-beta-xylanase (EC 3.2.1.8) 2 - Streptomyces roseiscleroticus (fragment)
C;Species: Streptomyces roseiscleroticus
C;Date: 03-Oct_1995 #sequence_revision 03-Oct-1995 #text_change 06-Dec-1996
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Best Local Similarity
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3; Mismatc
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Pred. No. 7.4e+02;
3; Mismatches 4
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Pred. No. 2e+05;
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A; Reference number: PQ0192

A; Accession: PQ0194

A; Molecule type: protein
A; Residues: 1-15 < MAUD>
A; Experimental source: style
C; Keywords: glycoprotein
                                                                                                                                                                                   A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-18 <ESM>
A;Experimental source: rectal gland
A;Note: sequence extracted from NCBI backbone (NCBIP:149363)
C;Keywords: hydrolase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R;Wasserman, R.; Galili, N.; Ito, Y.; Reichard, B.A.; Shane, S.; Rovera, G.
J. Exp. Med. 176, 1577-1581, 1992
A;Title: Predominance of fetal type DJH joining in young children with B precursor ly A;Reference number: PHI302; MUID:93094761
A;Accession: PHI312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ig heavy chain DJ region (clone C68-105) - human (fragment) C;Speciles: Homo sapiens (man) C;Speciles: Homo sapiens (man) C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 07-May-1999 C;Accession: PH1312
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Best Local Similarity
"~+~hes 3; Conserve
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A;Title: Style proteins of a wild tomato (Lycopersicon peruvianum) associated with ex
                                                                                                                                                                                                                                                                                                         R;Esmann, M.; Karlish, S.J.; Sottrup-Jensen, L.; Marsh, D.
Blochemistry 33, 8044-8050, 1994
A;Title: Structural integrity of the membrane domains in extensively trypsinized Na,K
A;Reference number: A54195; MUID:94297020
A;Steepension: A54195
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A; Residues: 1-17 <WAS>
C; Keywords: heterotetramer;
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                                                              Query Match
Best Local Similarity
""" Conserve
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C;Species: Squalus acanthias (spiny dogfish)
C;Date: 13-Oct-1994 #sequence_revision 18-Nov-1994 #text_change 23-Mar-1995
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Best Local Similarity 54.5%;
Matches 6; Conservative
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6 LIPPPTTPYDIKF 18
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Pred. No. 7.4e+02;
2; Mismatches 6;
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Pred. No. 6.9e+02;
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C;Accession: S58242
C;Accession: S58242
R;Schnider, U.; Keel, C.; Defago, G.; Haas, D.
submitted to the EMBL Data Library, May 1995
A;Description: Tn5-directed cloning of pqq genes from Pseudomonas fluorescens CHAO: thei
A;Reference number: S58239;
A;Accession: S58242
A;Accession: S58242
                                    7 C C
                                                                                                                       A;Molecule type: DNA
A;Residues: 'MYRQHPSHPPQRSNF',1-24 <SCH>
A;Residues: 'MYRQHPSHPPQRSNF',1-24 <SCH>
A;Cross-references: EMBL:X877299; NID:g929799; PIDN:CAA60731.1; PID:g929803; PIDN:CAA6073
A;Note: in GenBank entry PFPQQABCF, release 116.0, the indicated alternative sequence (F
                                                                                                                                                                                                                                                                                                                         pyrrologuinoline guinone precursor pgqA - Pseudomonas fluorescens N;Alternate names: pyrrologuinoline quinone biosynthesis A C;Species: Pseudomonas fluorescens C;Species: Pseudomonas fluorescens C;Date: 18-Feb-2000 #sequence_revision 18-Feb-2000 #text_change 18-Feb-2000
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S58242
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A:Title: Predominance of fetal type DJH joining in young children A; Reference number: PH1302; MUID:93094761
A; Accession: PH1364
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C;Keywords: copper; hemolymph; hexamer; oxygen carrier
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R;Makino, N.; Kimura, S.
Eur. J. Blochem. 173, 423-430, 1988
A;Title: Subunits of Panulirus japonicus hemocyanin.
A;Reference number: S00492; MUID:88196131
A;Accession: S00495
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C;Keywords: heterotetramer; immunoglobulin
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A; Residues: 1-23 <WAS>
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C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 07-May-1999
C;Accession: PH1364
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                                                                 Gene: pqqA
Superfamily: pyrrologuinoline quinone precursor
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Best Local Similarity 42.
Matches 6; Conservative
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16,20/Product: pyrrol
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Local Similarity 55:6%;
hes 5; Conservative
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Panulirus japonicus (Japanese spiny lobster)
-Dec-1988 #sequence_revision 31-Dec-1988 #text
                              pyrrologuinoline quinone #status predicted <MAT>
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Pred. No. 9.
2; Mismatche
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Pred. No.
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7.9e+02;
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J.9e+02;
J.9e+02;
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                                                                     pqqA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             σ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 #text_change 01-Aug-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              young children with B precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>.</u>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Isolation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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                            stylar glycoprotein 3 - Persian N; Alternate names: glycoprotein C; Species: Nicotiana alata (Pers
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JP0045
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A; Residues: 1-24 < RES>
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Best Local S
Matches 4
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                              alata (Persian
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A; Molecule type: protein
A; Residues: 1-25 < OCH>
C; Superfamily: Escherichia coli ribosomal protein
C; Keywords: protein biosynthesis; ribosome
                                                                                                                                                                                                                                                                                                                                                                                                ribosomal protein L30 - Staphylococcus C;Species: Staphylococcus aureus C;Date: 10-Mar-1994 #sequence_revision C;Accession: JP0045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Gene: GDB:NF1
A;Cross-references: GDB:120231;
A;Map position: 17q11.2-17q11.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
----hes 7; Conserve
                                                                                                                                                                                                                                                                                                                   A; Reference number: JP0042
A; Accession: JP0045
                                                                                                                                                                                                                                                                                                                                                   submitted to JIPID, February 1994 A; Description: Phylogenetic diver
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: GB:S61428; NID:g300449; PIDN:AAB26693.1; PID:g300450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Title: Analysis of mutations at the neurofibromatosis A;Reference number: I54329; MUID:93258316 A;Accession: I54329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Accession: I54329
R;Upadhyaya, M.; Shen, M.; Cherryson, A.; Farnham, J.; Maynard,
Hum. Mol. Genet. 1, 735-740, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Species: Homo sapiens (man)
C;Date: 01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change 05-Nov-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene NF1 protein - human (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  F;16-20/Cross-link: pyrroloquinoline quinone (Glu,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Status: preliminary; translated from GB/EMBL/DDB
                                                                                                                                                                Query Match
Best Local Similarity
Matches 5; Conserv
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                                                                                                                                   RMVISNPAATHODIDFL 19
                                                                                                  RSVIGRPETQRKTVEAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4; Conserv
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                                                                                                                                                                                   23.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23.3%;
                                                                                                                                                                                                                                                                                                                                                     diversity
tobacco (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OMIM:162200
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                                                                                                                                                                  Score 24; DB 2;
Pred. No. 1.1e+03;
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 24;
Pred. No.
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Pred. No. 1e+03;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
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1e+03;
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                                                                                                                                                                                                                                                                                                                                                     comparative ribosomal
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tobacco)

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                  Best Local Similarity 44.4
Matches 4; Conservative
                            Query Match
Best Local
                           22.3%;
                 Score 23; DB
Pred. No. 1.4e
3; Mismatches
               1.4e+03;
2;
                                     Length 22;
                  0
                 Gaps
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A; Cross-references:

EMBL:D17510; NID:g529643; PIDN:BAA04382.1;

PID:g1262665

GB/EMBL/DDBJ

entire chloroplast

Sugiura, M.

18-Aug-2000

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R.Wasserman, R.; Galill, N.; Ito, Y.; Reichard, B.A.; Shane, S.; Rovera, G.

Exp. Med. 176, 1577-1581, 1992

A;Title: Predominance of fetal type DJH joining in young children with B pr
A;Reference number: PH1302; MUID:93094761
A;Accession: PH1325
A;Molecule type: DNA
A;Residues: 1-22 <WAS>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Date: 16-Sep-1992 #sequ
C;Accession: PQ0174
R;Jahnen, W.; Batterham,
                                                                                                                                                                                                                                C;Accession: H49410
R;Rommelaere, H.; Van Troys, M.; Gao, Y.; Melki, R.; Cowan, N.J.; Vandekerckhove, J.; A Proc. Natl. Acad. Sci. U.S.A. 90, 11975-11979, 1993
A;Title: Eukaryotic cytosolic chaperonin contains t-complex polypeptide 1 and seven rel A;Reference number: A49410; MUID:94089752
A;Accession: H49410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C; Superfamil
C; Keywords:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Experimental source: style C; Comment: The protein is involved in self-incompatibility of flowering C; Superfamily: Enterobacter ribonuclease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: protein A; Residues: 1-15 < JAH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Title: Identification, isolation, and N-terminal sequencing of style glycoproteins A; Reference number: PQ0173; MUID: 92404717 A; Accession: PQ0174
                                                                                                                                                                                                                                                                                                                                                                           t-complex polypeptide 1 homolog (peak 7 fraction) -
N;Alternate names: chaperonin homolog (peak 7)
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 07-Oct-1994 #sequence_revision 07-Oct-1994 #
                                                                                                                                                               A; Molecule type: protein A; Residues: 1-22 < ROM>
                                                                                                                                                                                                         A:Status: preliminary.
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                                                                                                                                      A; Experimental source: reticulocyte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g heavy chain DJ region (clone C199-121) - human (fragment)
;Species: Homo sapiens (man)
;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Superfamily: immunoglobulin V region; immunoglobulin homology 
Keywords: heterotetramer; immunoglobulin
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Best Local
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4; Conser
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Pred. No. 1.
2; Mismatche
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Pred. No. 8.9e+02;
4; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      rabbit (fragments)
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A;Title: A synaptic vesicle specific GTP-binding protein from ray electric organ. A;Reference number: A43958; MUID:92099847

A;Accession: B43958
                                                                                                                                                                                                                                                      RESULT 24
T07504
hypothetical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R;Misono, H.; Sugihara, K.; Kuwamoto, Y.; Nagata, S.; Nagasaki, S. Agric. Biol. Chem. 54, 1491-1498, 1990
A;Title: Leucine dehydrogenase from Corynebacterium pseudodiphtheriticum: Purificatio A;Reference number: PT0076; MUID:91103959
A;Accession: PT0076
                                                                                                                                                                           nypothetical protein 25 - Japanese black pine chloroplast C:Species: chloroplast Pinus thunbergiana (Japanese black pine) C:Date: 14-May-1999 #sequence_revision 14-May-1999 #text_change C:Accession: T07504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTP-binding protein, synaptic vesicle-specific - marbled electric ray (fragments) C;Species: Torpedo marmorata (marbled electric ray) C;Date: 12-Mar_1993 #sequence_revision 12-Mar-1993 #text_change 28-May-1999
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A; Molecule type: protein
A; Residues: 1-23 < VOL>
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A; Molecule type:
A; Residues: 1-25
                                                                A; Reference number: 216030;
A; Accession: T07:504
                                                                                       R;Wakasugi, T.; Tsudzuki, J.; Ito, S.; Nakashima, K.; Tsudzuki, T.; Proc. Natl. Acad. Sci. U.S.A. 91, 9794-9798, 1994
A;Title: Loss of all ndh genes as determined by sequencing the entil A;Reference number: Z16030; MUID:95024047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C; Keywords:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Experimental source: strain ICR2210 C; Comment: This enzyme catalyzes the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: protein A; Residues: 1-24 <MIS>
                                       A; Status: preliminary;
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Score 23; DB 2; Pred. No. 1.5e+03;

Length 23;

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elongation

factor

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homology

Mismatches

0

Gaps

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0;

Mismatches

Indels 24

0

Gaps

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Score 23; DB 2; Pred. No. 1.5e+03;

Length

reversible

deamination of

branched-chain

and

07-May-1999

(fragment)

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RESULT 25
S35926
S35926
T-cell receptor gamma chain - human (fragment)
C:Species: Homo sapiens (man)
C:Date: 06-Feb-1995 #sequence_revision 06-Feb-1995 #text_change 30-May-1997
C:Accession: S35926
R:Mathioudakis, G: Platsoucas, C.D.
submitted to the EMBL Data Library, May 1993
A;Bescription: An alternative splicing between VgammaJgamma2.3 and Cgamma2 gene segments
A;Accession: S35926
A;Accession: S35926
A;Accession: S35926
A;Cross-references: EMBA: Z22688
A;Cross-references: EMBL: Z22688
A;Cross-references: EMBL: Z22688
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A;Genome: chloroplast
C;Keywords: chloroplast
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Search completed: February 5, 2001, 10:49:32 Job time: 745 sec
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15 MVVSGP 20
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7 YLLIIRNSLAVEQHL 21
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